

Trends in Cancer Incidence and Mortality in New Jersey 1979 - 2002

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TABLE OF CONTENTS

Acknowledgments.....	iii
Introduction.....	1
Summary.....	2
Trends in Incidence and Mortality, 1979-2002.....	4
Total Cancer	8
Female Breast Cancer.....	10
Prostate Cancer	12
Lung Cancer	14
Colorectal Cancer	16
Non-Hodgkin Lymphoma	18
Bladder Cancer	20
Melanoma of the Skin	22
Endometrial Cancer.....	24
Cervical Cancer.....	26
Ovarian Cancer.....	28
Oral Cancer.....	30
Thyroid Cancer.....	32
Technical Notes.....	34
References.....	39
Glossary.....	40

Appendix I - Cancer Incidence and Mortality Data Tables.....	43
Table 1. Male Total Cancer Incidence by Most Frequent Site, New Jersey, 1979 and 2002....	44
Table 2. Male Total Cancer Mortality by Most Frequent Site, New Jersey, 1979 and 2001....	44
Table 3. Female Total Cancer Incidence by Most Frequent Site, New Jersey, 1979 and 2002.....	45
Table 4. Female Total Cancer Mortality by Most Frequent Site, New Jersey, 1979 and 2001.....	45
Table 5. Male Total Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	46
Table 6. Female Total Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	47
Table 7. Female Breast Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	48
Table 8. Prostate Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	49
Table 9. Male Lung Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	50
Table 10. Female Lung Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	51
Table 11. Male Colorectal Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	52
Table 12. Female Colorectal Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	53
Table 13. Male Non-Hodgkin Lymphoma Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	54
Table 14. Female Non-Hodgkin Lymphoma Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	55
Table 15. Male Bladder Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	56

Table 16. Female Bladder Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	57
Table 17. Male Melanoma of the Skin Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	58
Table 18. Female Melanoma of the Skin Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	59
Table 19. Endometrial Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	60
Table 20. Cervical Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	61
Table 21. Ovarian Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	63
Table 22. Male Oropharyngeal Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	64
Table 23. Female Oropharyngeal Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	65
Table 24. Male Thyroid Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	66
Table 25. Female Thyroid Cancer Incidence and Mortality Rates/Counts, New Jersey and U.S., 1979-2002.....	67

INTRODUCTION

The purpose of this report is to provide information on the trends in cancer incidence and mortality in New Jersey for use by health planners, health care providers, researchers and the public. Included in the report are New Jersey annual age-adjusted rates for all types of cancer combined and the twelve most common cancer types among men and/or women. The time periods are the 24 years from 1979 to 2002 for incidence rates and the 23-year period from 1979 to 2001 for mortality rates. The twelve specific cancer types are female breast cancer, prostate cancer, lung cancer, colorectal cancer, non-Hodgkin lymphoma, bladder cancer, melanoma of the skin, endometrial cancer, cervical cancer, ovarian cancer, oral (oropharyngeal) cancer, and thyroid cancer.

The U.S. incidence and mortality age-adjusted rates from 1979 to 2001 for these same cancers also are included for comparison with the New Jersey rates. The years 1979 through 2002 include all the years for which the New Jersey State Cancer Registry has complete cancer incidence data. New Jersey cancer mortality data and U.S. cancer incidence and mortality data are available for years earlier than 1979, but were not available for the year 2002 at the time this report was prepared.

This report does not provide cancer incidence and mortality data for other important categories such as age, race, ethnicity or other geographic areas such as county or municipality. Additional New Jersey cancer incidence, mortality, and survival data are available, or will be soon, from the Cancer Epidemiology Services office or on our website, <http://nj.gov/health/ces/index.shtml>, including:

- *Cancer Incidence and Mortality in New Jersey 1999-2003*;
- *Cancer Incidence and Mortality in New Jersey 1998-2002*;
- *Childhood Cancer in New Jersey 1979-2002*;
- *Cancer Incidence Rates in New Jersey's Ten Most Populated Municipalities 1998-2002*; and
- *Cancer Survival in New Jersey 1979-1997*.

Our new interactive cancer data mapping application provides incidence and mortality counts and rates statewide and at the county level by year, age, sex, race, and ethnicity for the years 1998-2002 at <http://www.cancer-rates.info/nj/>. This application will be updated as each additional year's data become complete. Other New Jersey and U.S. cancer data can be found on the following websites:

- Cancer Control Planet <http://cancercontrolplanet.cancer.gov/>
- North American Association of Central Cancer Registries' *Cancer in North America 1998-2002*
http://www.naaccr.org/index.asp?Col_SectionKey=11&Col_ContentID=49
- Surveillance, Epidemiology and End Results Program (SEER) Cancer Statistics
<http://surveillance.cancer.gov/statistics/>

SUMMARY

Cancer Incidence and Mortality in New Jersey

In 2002, over 46,000 cases of cancer were diagnosed in New Jersey residents, over 24,000 in men and over 22,000 in women. This represents about a 44 percent increase in the numbers of cases since 1979, when there were nearly 32,000 cases, about 16,000 of each sex. The increase in numbers of cancer cases was fairly steady throughout 1979 to 2002. However, the age-adjusted cancer incidence rates increased much less between 1979 and 2002, 15 percent among men and 9 percent among women. This is because the population of New Jersey aged during this time period and cancer is primarily a disease of older age. The three most common cancer types newly diagnosed in men in 2002 were prostate (34%), lung (13%), and colorectal (11%). Among women, breast (29%), lung (13%), and colorectal (12%) were the most commonly diagnosed types of cancer in 2002.

The number of deaths due to cancer among New Jersey residents was over 15,000 in 1979 and over 18,000 in 2001, a 19 percent increase. The number of deaths in men remained relatively stable - 8,143 in 1979 and 8,928 in 2001. The number of deaths in women rose by 30 percent and now exceeds the number in men - 7,117 in 1979 and 9,236 in 2001. Despite the increase in cancer incidence rates, the age-adjusted cancer death rate decreased 17 percent in men and 3 percent in women. These decreases have been attributed to earlier diagnosis, when cancer is more treatable, and improvements in treatment.

In New Jersey, the types of cancer that contributed most to the increase in male incidence rates include prostate, non-Hodgkin lymphoma, and melanoma of the skin. The increase in these cancer types, particularly prostate, outweighed the decreases in lung, colorectal, and oral cancer. Among women, increases in breast, lung, non-Hodgkin lymphoma, melanoma of the skin, and endometrial cancer contributed most to the overall increase in incidence rates. These increases were partly offset by decreases in colorectal, cervical, and ovarian cancer incidence. Death rates remained stable or declined for all the specific types of cancer except female lung cancer and non-Hodgkin lymphoma.

The large declines in lung and oral cancer incidence and death among men and the large increases in lung cancer incidence and death in women are related to past smoking patterns. The percentage of women who smoke began decreasing rapidly in the mid-1980's whereas the percentage of men who smoke began decreasing rapidly much earlier (before 1965). Hopefully, the leveling off of female lung cancer incidence rates in New Jersey (and the decrease in the U.S. rates) will continue into the future. Prostate and female breast cancer incidence rates followed a similar pattern of a rapid and large increase followed by a decrease and then a plateau and slight increase. This pattern typically follows the widespread adoption of a new screening method in the population. Screening also contributed to the decrease in colorectal and cervical cancer incidence rates.

Non-Hodgkin lymphoma incidence rates increased due to the HIV/AIDS epidemic in New Jersey and other unknown factors. Increased sunlight exposure, early detection and better reporting all may have contributed to the increase in melanoma of the skin incidence rates. The reason(s) for the sharp increase in thyroid cancer in recent years, especially among women, is unknown. Some theorized explanations are increased diagnosis by medical practitioners and increased prevalence of possible risk factors such as diagnostic radiation and obesity.

Cancer Incidence and Mortality in New Jersey Compared to the U.S.

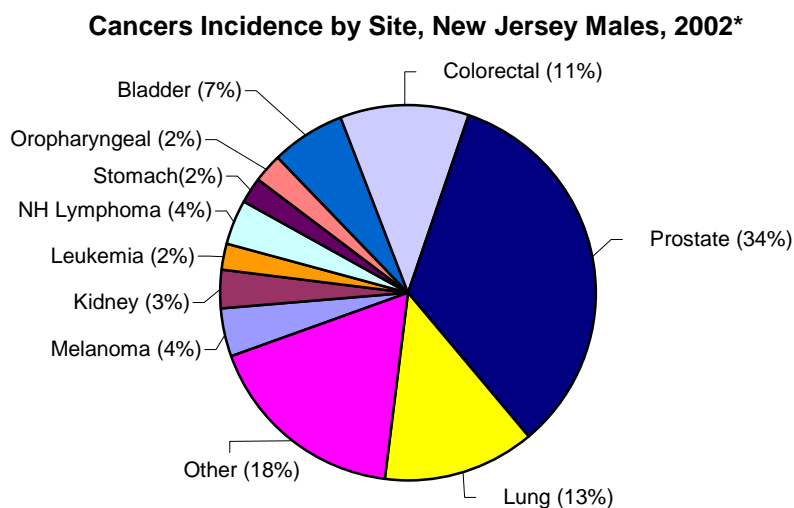
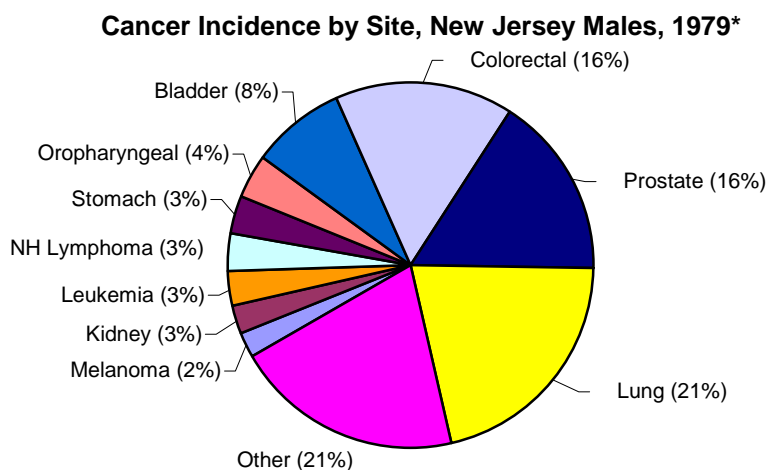
Overall, the trends from 1979 through 2001 in cancer incidence rates for New Jersey residents were similar to the U.S. trends, although the rates were usually higher in New Jersey. Notable exceptions were female breast cancer for which the New Jersey annual incidence rates converged with the U.S. rates in more recent years. The oral cancer and melanoma of the skin New Jersey annual rates were usually lower than the U.S. rates throughout these years. The New Jersey annual rates for prostate cancer, non-Hodgkin lymphoma, endometrial cancer and thyroid cancer were lower than the U.S. rates in the earlier years and higher than the U.S. rates in the more recent years. Thyroid cancer incidence rates among New Jersey women increased much more than among U.S. women in the most recent three years. (It should be noted that while the U.S. cancer incidence data from the Surveillance, Epidemiology and End Results (SEER) Program are considered representative of the entire U.S., a recent study indicates that tobacco-related cancers may be underrepresented.)

The New Jersey cancer mortality rates and time trends were strikingly similar to the U.S. rates and trends for all cancers and every specific cancer type. Exceptions are that the New Jersey male lung cancer death rates were distinctly lower than the U.S. rates after 1991 and the colorectal cancer rates were distinctly higher than the U.S. rates until 1997 for men and until 1995 for women. Ovarian cancer death rates were higher among New Jersey women than U.S. women, although the rates became closer after 1994.

TRENDS IN CANCER INCIDENCE AND MORTALITY IN NEW JERSEY 1979-2002

Men – Cancer Incidence by Site

- The most common cancers diagnosed among New Jersey men in 1979 were lung (21%), prostate (16%), and colorectal (16%). By 2002, prostate cancer was the most common cancer, accounting for 34%, followed by lung (13%) and colorectal (11%).



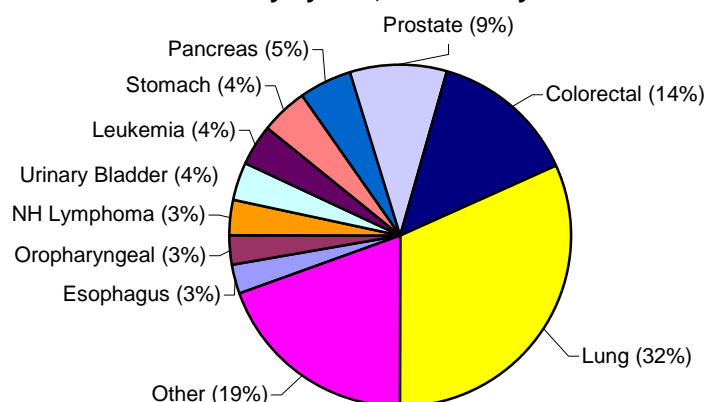
*Percentages are rounded. 2002 New Jersey incidence data are preliminary.

See Table 1. in Appendix I for detailed data.

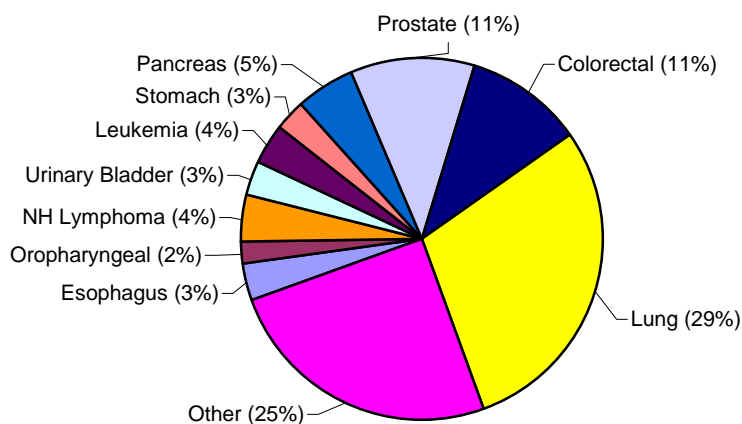
Men – Cancer Mortality by Site

- Similar to cancer incidence, among New Jersey men the most common cancer deaths in 1979 were lung (32%), then colorectal (14%), and prostate (9%). Twenty-two years later, in 2001, the major cancer deaths were still due to lung cancer (29%), prostate cancer (11%) and colorectal cancer (11%).

Cancer Mortality by Site, New Jersey Males 1979*



Cancer Mortality by Site, New Jersey Males 2001*



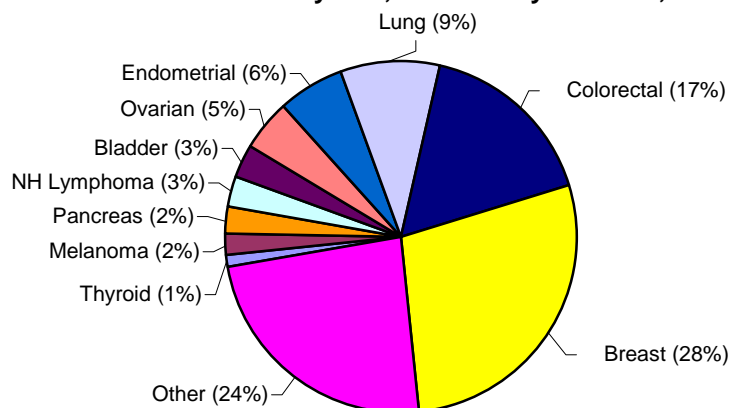
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See Table 2. in Appendix I for detailed data.

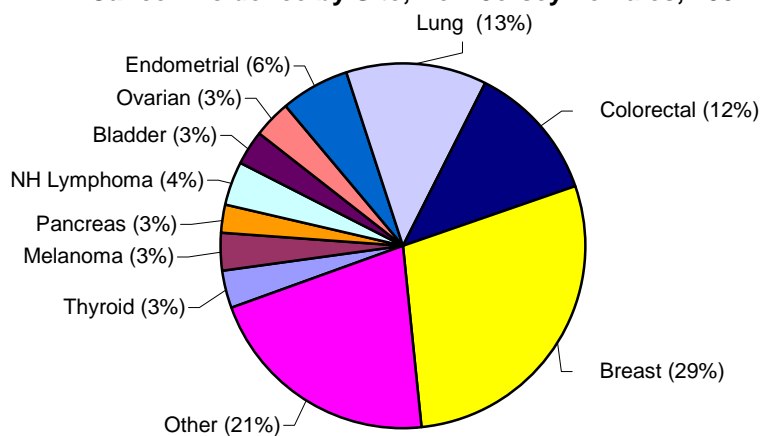
Women – Cancer Incidence by Site

- The most common cancers diagnosed among New Jersey women in 1979 were breast (28%), colorectal (17%) and lung (9%). In 2002, the most common cancer remained breast (29%), but lung at 13% and colorectal at 12% exchanged places.

Cancer Incidence by Site, New Jersey Females, 1979*



Cancer Incidence by Site, New Jersey Females, 2002*

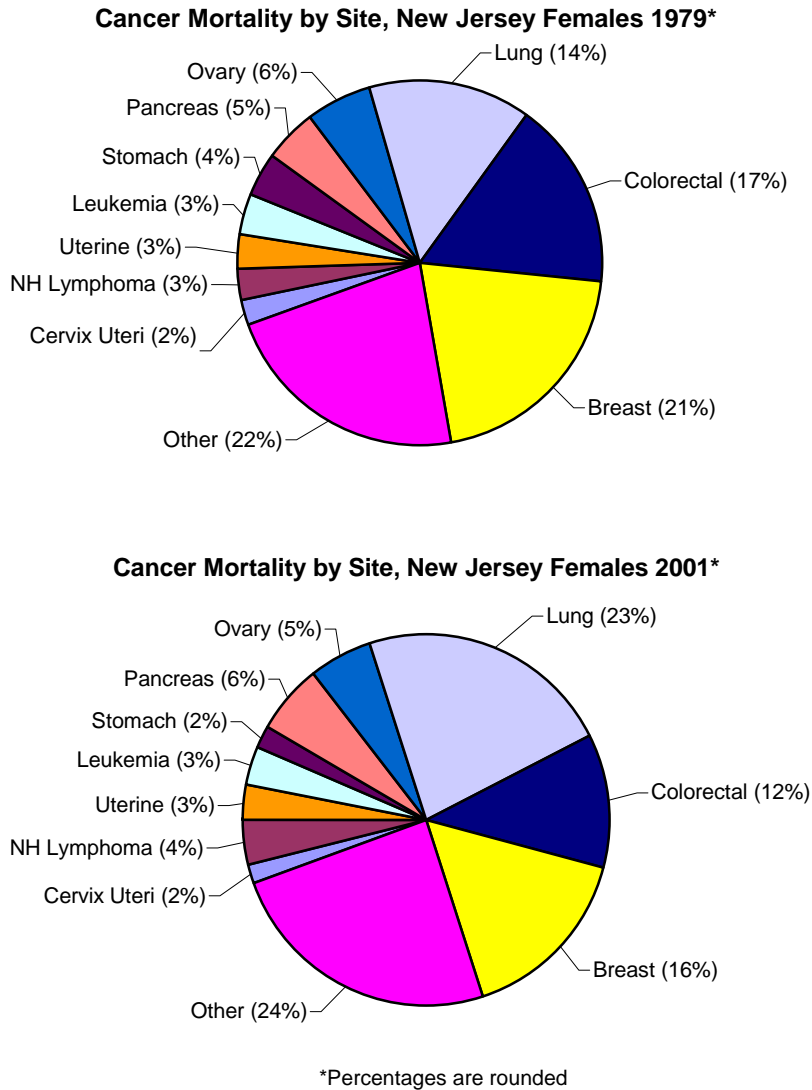


*Percentages are rounded. 2002 New Jersey incidence data are preliminary.

See Table 3. in Appendix I for detailed data.

Women – Cancer Mortality by Site

- Similar to cancer incidence, in 1979 among New Jersey women, the most cancer deaths were breast (21%), colorectal (17%) and lung (14%). But by 2001, lung cancer comprised the most cancer deaths (23%), followed by breast (16%) and colorectal (12%).



See Table 4. in Appendix I for detailed data.

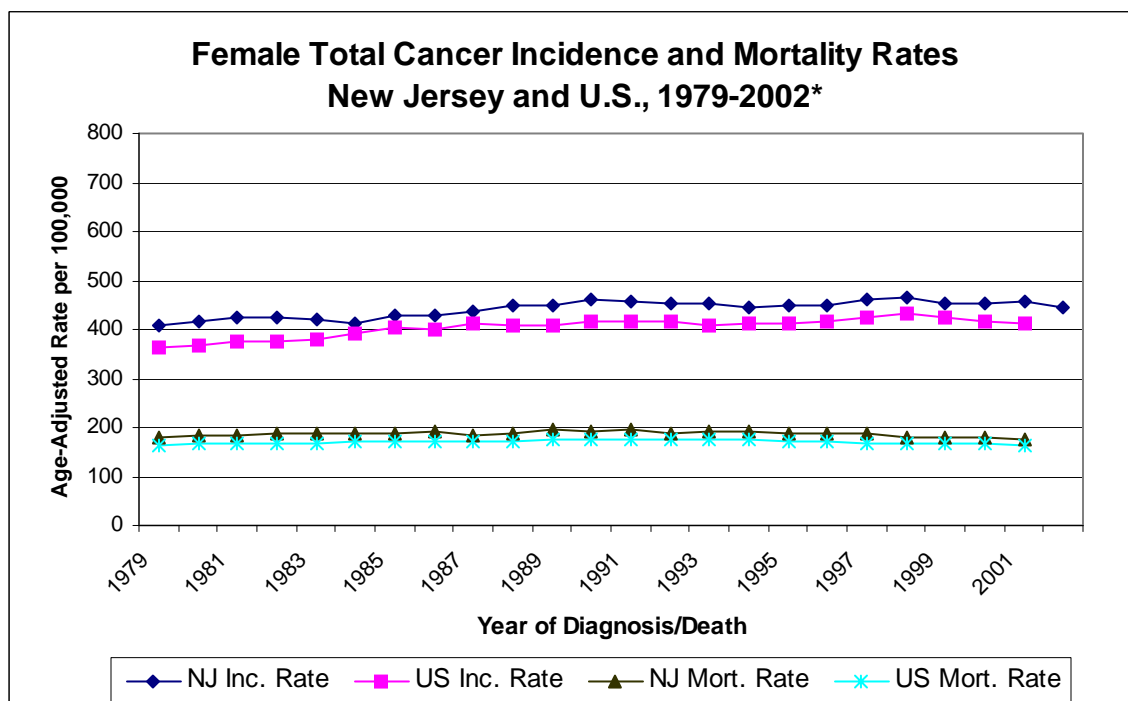
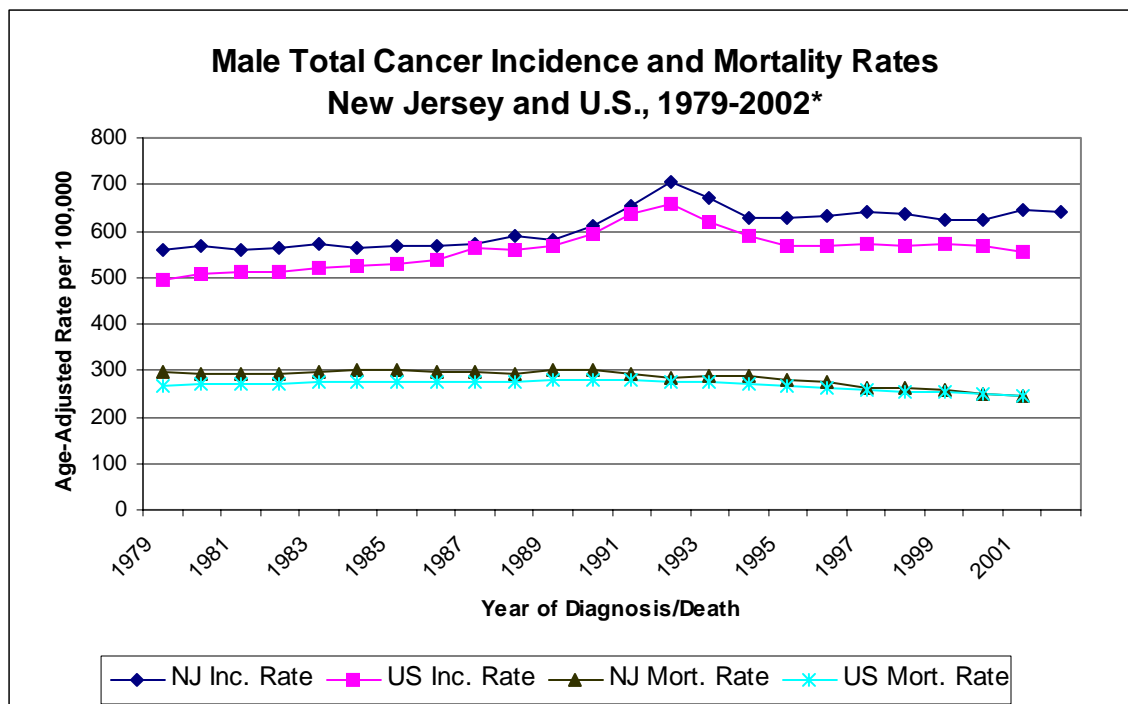
Total Cancer Incidence

- In New Jersey, over 24,000 men and over 22,000 women were diagnosed with cancer in 2002.
- The New Jersey 2002 age-adjusted total cancer incidence rate was about 640 cases per 100,000 men and 445 cases per 100,000 women, an increase of 15% and 9%, respectively, since 1979.
- New Jersey male incidence rates peaked in 1992, declined for a few years and then plateaued, coincident with the pattern of prostate cancer incidence (see page 13).
- New Jersey female incidence rates slowly increased since 1979 due to increases in breast, lung, and endometrial cancers, melanoma of the skin and non-Hodgkin lymphoma.
- The New Jersey and U.S. total cancer incidence rates followed a similar pattern from 1979 through 2001, but the New Jersey rates were higher than the U.S. rates during the entire period.
- About a third of all cancers may be attributed to smoking, a third to poor nutrition, obesity, and lack of physical activity, and the remainder to familial and genetic factors, viruses, occupational and environmental carcinogens, and as yet unknown factors.

Total Cancer Mortality

- In New Jersey, almost 9,000 men and more than 9,000 women died of cancer in 2001.
- The New Jersey 2001 age-adjusted total cancer death rate was about 246 deaths per 100,000 men and 176 deaths per 100,000 women. The death rate decreased 17% among men and 3% among women since 1979, despite the increase in the incidence rate.
- The New Jersey and U.S. total cancer death rates followed a similar pattern, but the New Jersey total cancer death rates were slightly higher than the U.S. cancer death rates during the entire period.
- Cancer is now the leading cause of death in people under 85 years of age.

See Tables 5. and 6. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers except for *in situ* bladder cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

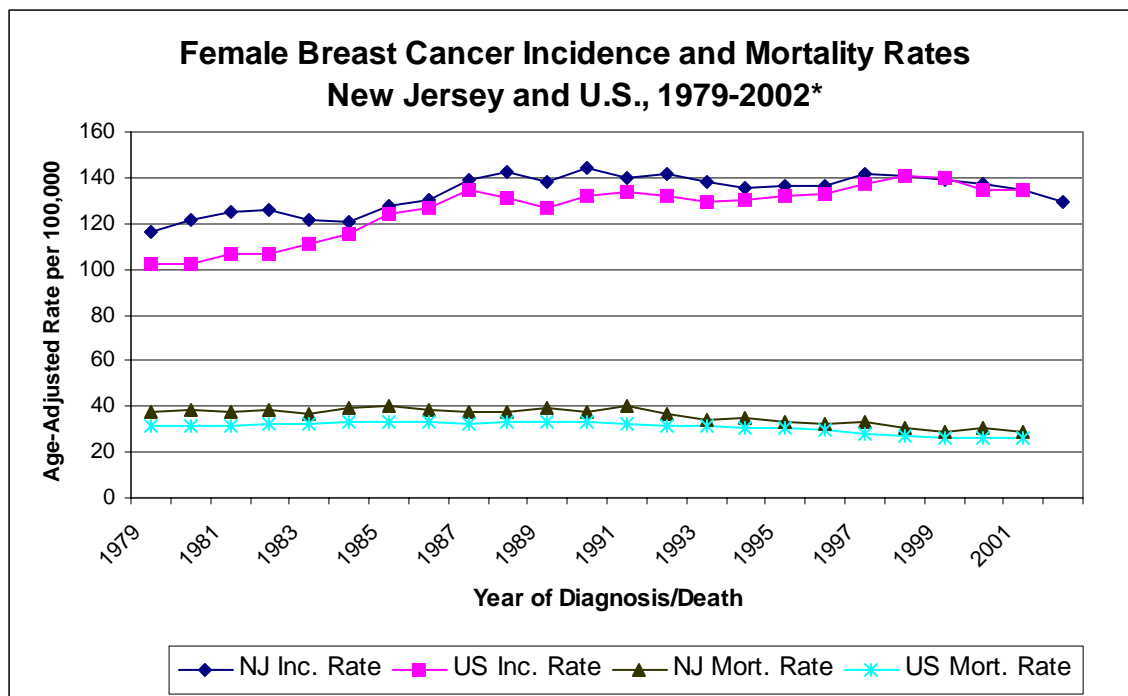
Female Breast Cancer Incidence

- Breast cancer is the most common cancer among New Jersey women with over 6,000 cases a year, almost a third of all reportable cancers among women.
- The 2002 age-adjusted breast cancer incidence rate among New Jersey women was about 130 cases per 100,000, a 12% increase since 1979. However, the rate has been leveling off since 1997.
- In New Jersey, the incidence rate peaked in 1990, declined for a few years and peaked again in 1997, primarily due to widespread use of mammography beginning in the late 1980's to detect breast cancer early. Increased obesity and use of hormone replacement therapy may also have contributed to the increase.
- The New Jersey and U.S. incidence rates followed a similar pattern, but the New Jersey rates were higher than the U.S. rates from 1979 through 1997, after which the New Jersey and U.S. rates converged.
- Risk factors for breast cancer include age (the risk increases with increasing age), delayed childbirth or never having children, early onset of menstruation, late menopause, a personal or family history of breast cancer, mutations in either of the two genes BRCA-1 and BRCA-2, biopsy-confirmed atypical hyperplasia, high breast tissue density, recent use of oral contraceptives, post-menopausal hormone therapy especially combined estrogen and progestin, obesity after menopause, and moderate to heavy alcohol consumption. Women in higher socio-economic status groups often have a combination of these risk factors. Other factors that may be associated with breast cancer are lack of physical activity and a diet high in fat.

Female Breast Cancer Mortality

- In New Jersey, the 2001 age-adjusted breast cancer death rate among women was about 29 deaths per 100,000, a 23% decrease since 1979. The decline in mortality is believed to be due to early detection and better treatment including increased use of hormonal and adjuvant chemotherapies.
- The patterns over time of the New Jersey and U.S. breast cancer death rates were similar, with New Jersey rates slightly higher than the U.S. rates.

See Table 7. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.



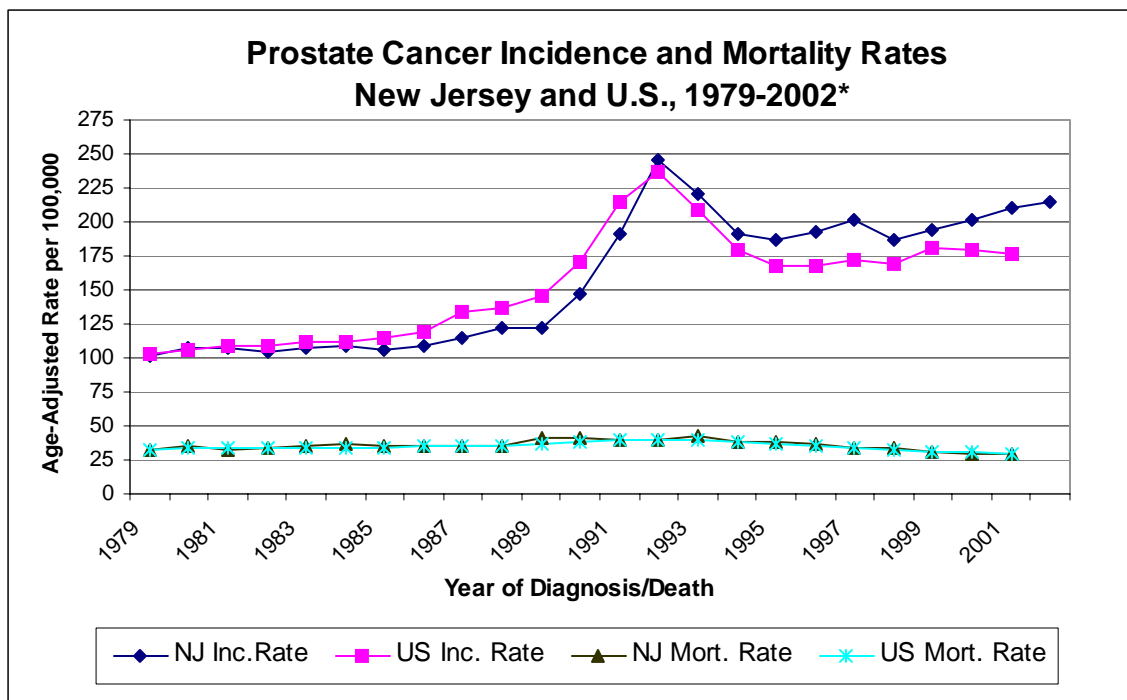
Prostate Cancer Incidence

- Prostate cancer is the most common cancer among New Jersey men with over 8,000 new cases annually in the most recent years, about a third of all reportable cancers among men.
- New Jersey men had a prostate cancer incidence rate of about 214 cases per 100,000 in 2002.
- The prostate cancer incidence rate among New Jersey men more than doubled between 1979 and 1992, declined rapidly through 1995 and then slowly increased, primarily due to the widespread use of the prostate-specific antigen (PSA) test to detect prostate cancer beginning in the early 1990's.
- The pattern described above also occurred among U.S. men, although the decline after 1992 was greater than the decline among New Jersey men.
- Risk factors for prostate cancer are age (the risk increases with increasing age), black race, and family history of prostate cancer. A possible risk factor is a diet high in saturated fat.

Prostate Cancer Mortality

- Despite the dramatic increase in incidence rates, prostate cancer death rates were relatively steady over this time period in New Jersey, with a rate of 30 deaths per 100,000 men in 2001.
- The same pattern and magnitude of death rates occurred among U.S. men as among New Jersey men.

See Table 8. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.



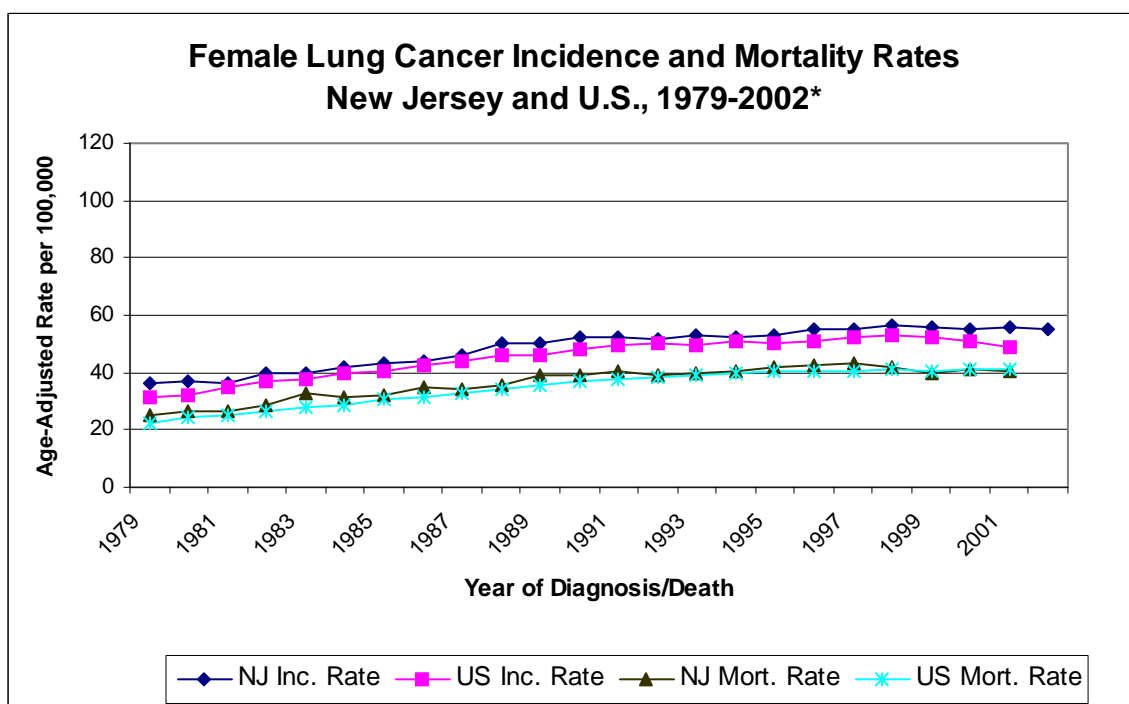
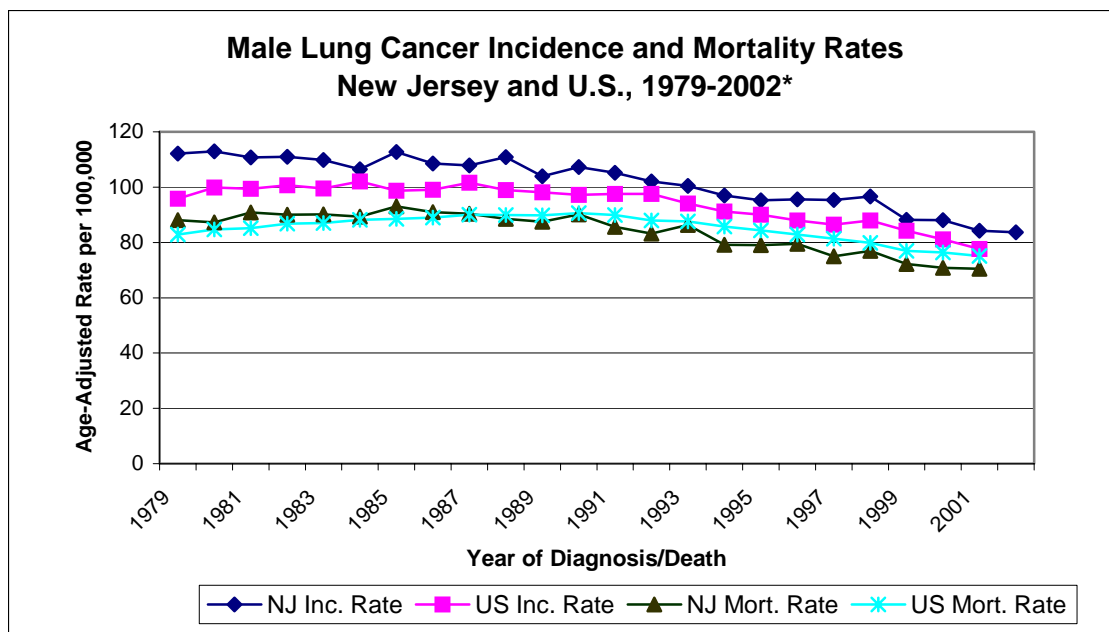
Lung Cancer Incidence

- In 2002, over 3,000 men and nearly 3,000 women were diagnosed with lung cancer in New Jersey.
- Among New Jersey men the lung cancer incidence rate declined 25% from about 112 cases per 100,000 in 1979 to about 84 cases per 100,000 in 2002. Among New Jersey women the lung cancer incidence rate increased over 50%, from about 36 cases per 100,000 in 1979 to about 55 cases per 100,000 in 2002. However, women's rates were stable from 1998 onward.
- Similar time trends occurred among U.S. men and women, although the New Jersey rates were generally higher than the U.S. rates and U.S. women's rates declined after 1998.
- Past smoking patterns among men and women are the main cause of these trends. The percentage of women who smoke began decreasing rapidly in the mid-1980's whereas the percentage of men who smoke began decreasing rapidly much earlier (before 1965). Hopefully, the leveling off of female lung cancer incidence rates in New Jersey (and the decrease in the U.S. rates) will continue into the future.
- Cigarette smoking is responsible for almost 90 percent of all lung cancers. Other risk factors include exposure to environmental tobacco smoke (second-hand smoke), residential radon exposure, high doses of ionizing radiation such as might be received from therapeutic radiation treatment, and certain occupational exposures including asbestos. Air pollution, specifically particulates from burning fossil fuel, also is a risk factor for lung cancer.

Lung Cancer Mortality

- Lung cancer is very deadly and causes the most cancer deaths in New Jersey – nearly 3,000 a year among men and over 2,000 a year among women.
- New Jersey men experienced a 20% decline in their lung cancer death rate between 1979 and 2001, while New Jersey women had a 60% increase.
- Lung cancer death rates were higher among New Jersey men compared to U.S. men until 1988, when U.S. men began having higher death rates than New Jersey men, which continued through 2001.
- New Jersey women had higher lung cancer death rates than U.S. women throughout 1979-2001, except for a few of the most recent years.

See Tables 9. and 10. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

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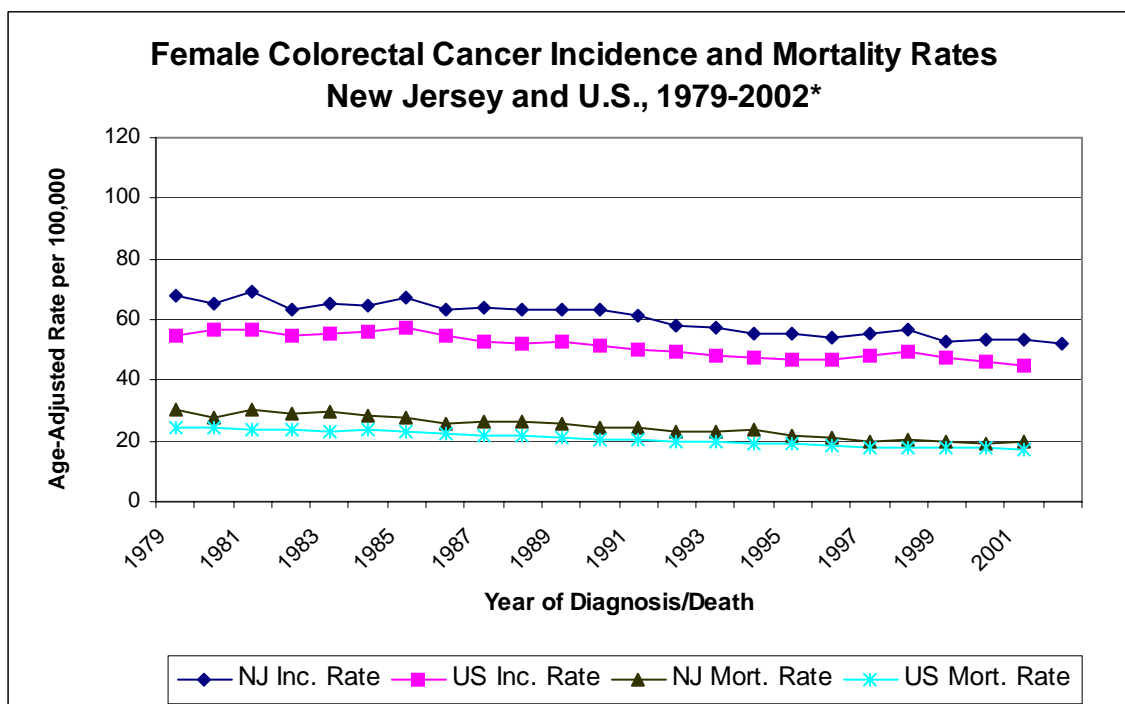
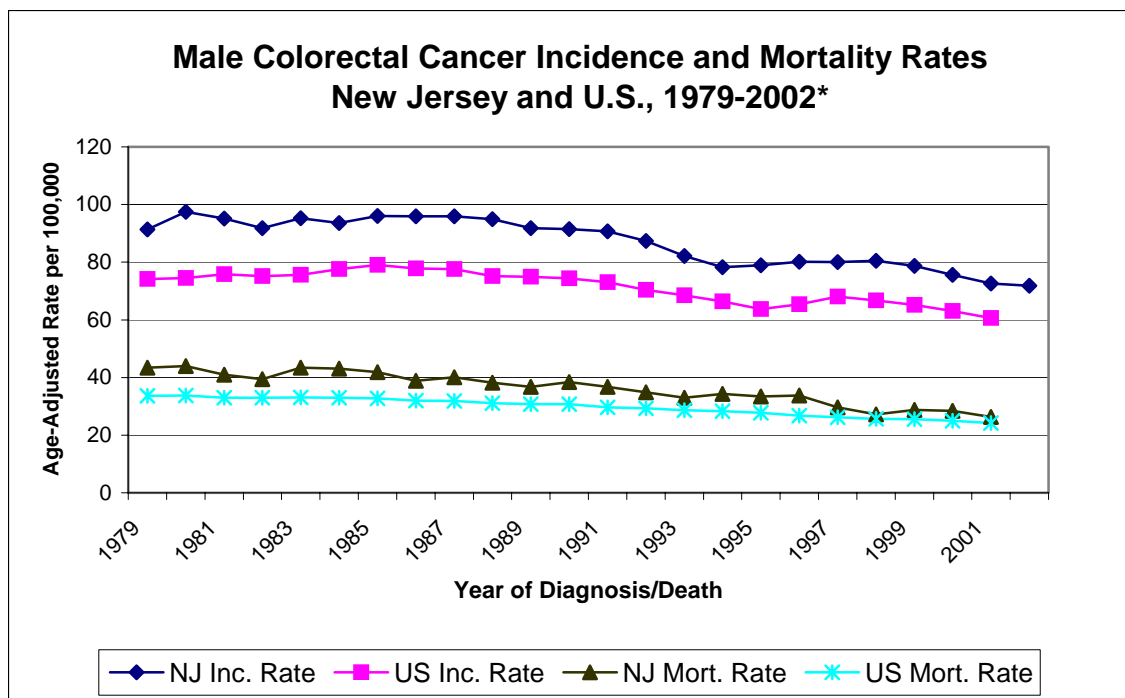
Colorectal Cancer Incidence

- In New Jersey, the incidence rates for colorectal cancer, the third most common cancer, dropped by over 20% between 1979 and 2002 for men and women, to about 72 cases per 100,000 men and about 52 cases per 100,000 women.
- Colorectal cancer incidence rates also decreased among U.S. men and women. New Jersey men and women had higher rates than their U.S. counterparts throughout this time period, although the gap began closing in the more recent years.
- The decline is due partly to increased screening through which colon polyps are found and removed before they become cancerous. The decline may also be due partly to the increased use of hormone replacement therapy and nonsteroidal anti-inflammatory drugs such as aspirin.
- Risk factors for colorectal cancer include age (the risk increases with increasing age), a personal or family history of colorectal cancer and/or polyps, a personal history of inflammatory bowel disease, smoking, alcohol use, physical inactivity, and a diet high in saturated fat and/or red meat and low in fruits and vegetables.

Colorectal Cancer Mortality

- Between 1979 and 2001, New Jersey men's colorectal cancer death rate declined 39% to about 26 deaths per 100,000 and women's death rate declined 35% to about 20 deaths per 100,000. Similar decreases occurred among U.S. men and women.
- New Jersey men and women had slightly higher death rates than U.S. men and women for all years, although the difference decreased in the most recent years.

See Tables 11. and 12. in Appendix I for the detailed data.



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Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

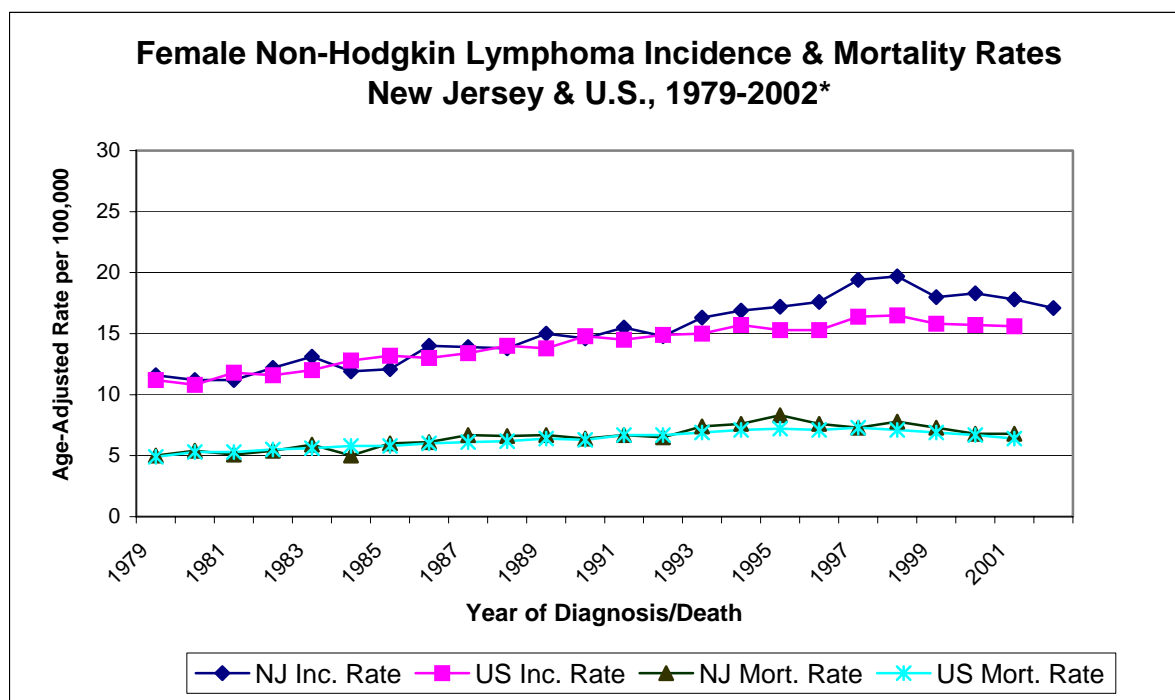
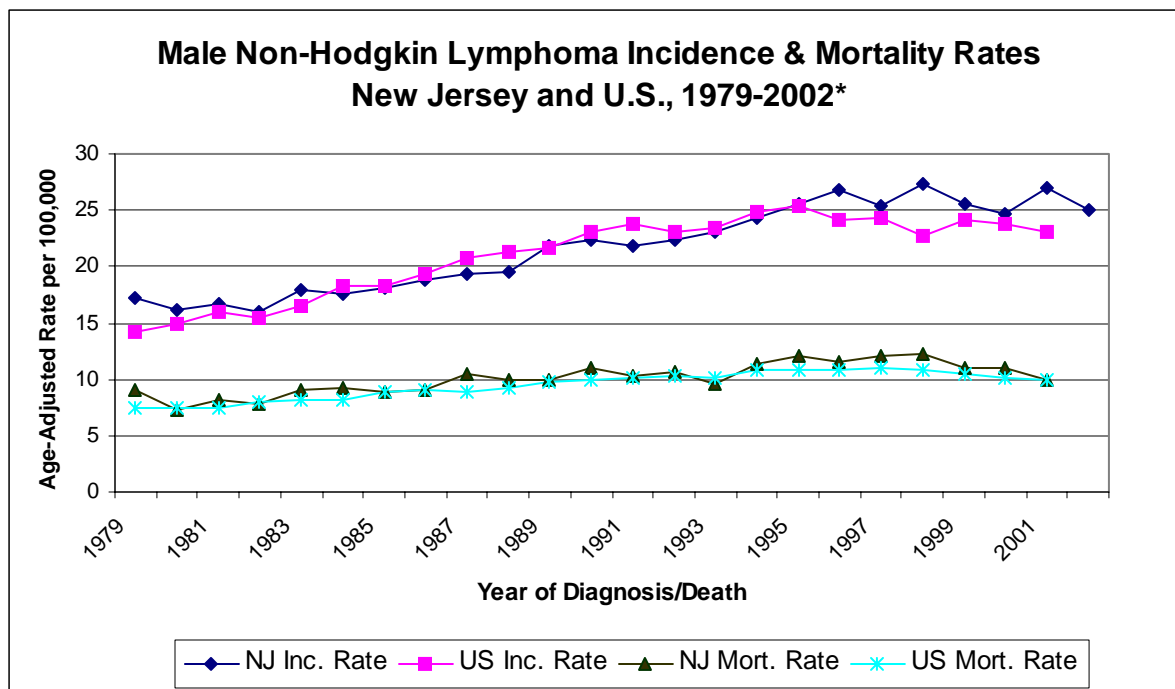
Non-Hodgkin Lymphoma Incidence

- In New Jersey the 2002 non-Hodgkin lymphoma (NHL) incidence rate was about 25 cases per 100,000 men and 17 cases per 100,000 women, over a 40% increase for each gender since 1979. However, in more recent years the incidence rates leveled off.
- The HIV/AIDS epidemic partially caused the increase in NHL since the early 1980's, but other unknown factors also contributed to the increase.
- The patterns of increase over time were similar in New Jersey to the U.S. The New Jersey and U.S. rates were very similar until 1996 for men and 1993 for women, after which the New Jersey rates were consistently higher than the U.S. rates. This may be related to the higher rates of HIV/AIDS in New Jersey compared to the U.S.
- Risk factors for non-Hodgkin lymphoma are mostly associated with greatly reduced immune function due to organ transplantation, infection with viruses such as human immunodeficiency (HIV), human T-cell leukemia/lymphoma (HTLV-1), and hepatitis C (HCV), and infection with *H. pylori*. Another risk factor is a family history of lymphoma. Possible risk factors are infection with the Epstein-Barr virus, occupational exposure to herbicides, organic solvents, and other chemicals, diet, lack of exercise, and obesity. The causes of most non-Hodgkin lymphomas are unknown.

Non-Hodgkin Lymphoma Mortality

- In 2001, the New Jersey NHL death rate was about 10 deaths per 100,000 men and 7 deaths per 100,000 women, an increase of 11% and 36%, respectively, since 1979.
- The death rates for New Jersey and U.S. men and women were similar throughout the 1979-2001 time period, despite the higher incidence rates in New Jersey than in the U.S. beginning in the mid-90's.

See Tables 13. and 14. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

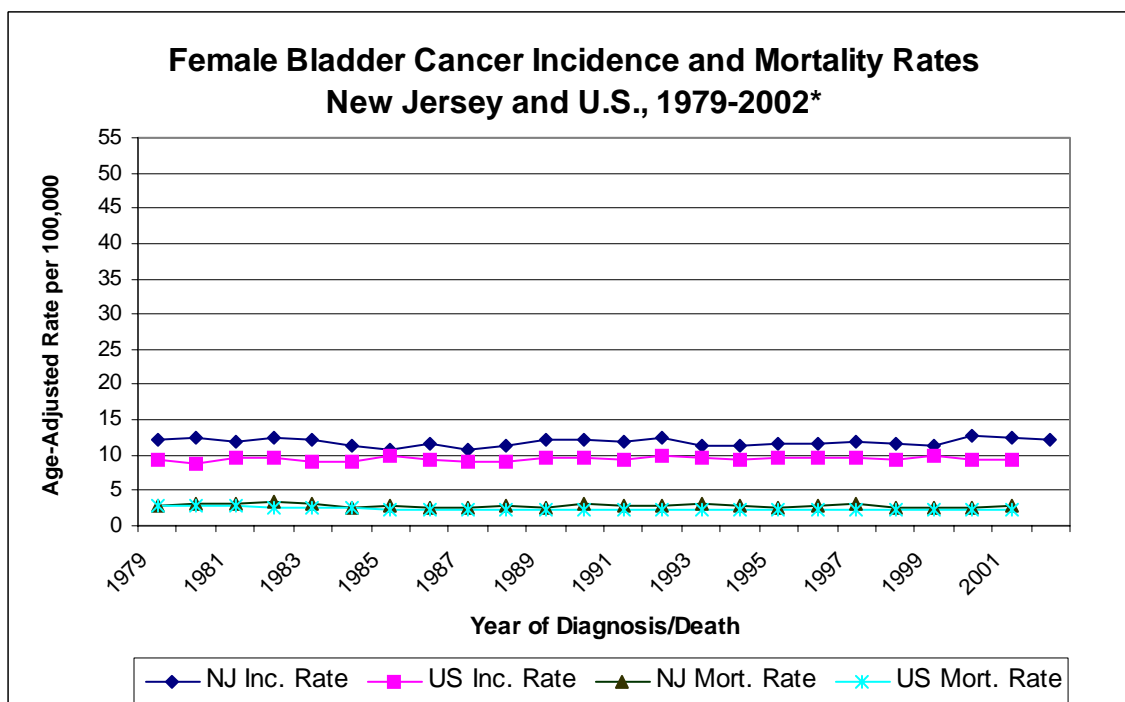
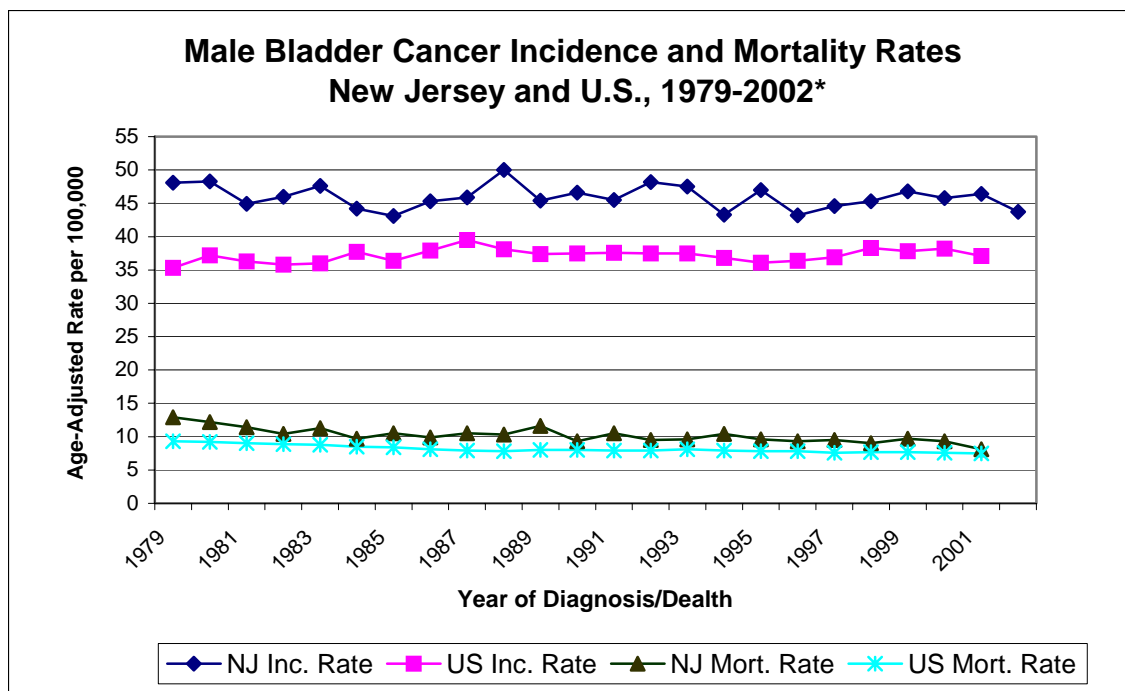
Bladder Cancer Incidence

- In New Jersey the bladder cancer incidence rates among men and women have remained relatively stable from 1979 to 2002, although men had much higher rates than women – about 44 cases per 100,000 men versus about 12 cases per 100,000 women in 2002.
- The U.S. bladder cancer incidence rates also remained relatively stable from 1979 to 2001, among both men and women.
- Bladder cancer incidence rates were higher each year among New Jersey men and women compared to U.S. men and women.
- The most important risk factor for bladder cancer is cigarette smoking; other risk factors are occupational exposure to benzidine and 2-naphthylamine and occupations in the dye, leather or rubber industries. Possible risk factors are heavy coffee consumption, bladder infection with schistosoma haematobium (a parasitic flatworm), treatment with chlornaphazine or cyclophosphamide (anti-cancer drugs), long-term use of pain killers containing phenacetin, urinary tract infections or low urine flow, dietary factors, tobacco use other than cigarettes, and genetic factors.

Bladder Cancer Mortality

- In 2001, New Jersey men's bladder cancer mortality rate was about 8 deaths per 100,000 and women's was about 3 deaths per 100,000, representing a decrease since 1979 for men, but not for women.
- Between 1979 and 2001, the New Jersey bladder cancer mortality patterns were similar to the U.S. patterns.

See Tables 15. and 16. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary, *in situ* bladder cancer incident cases are included.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

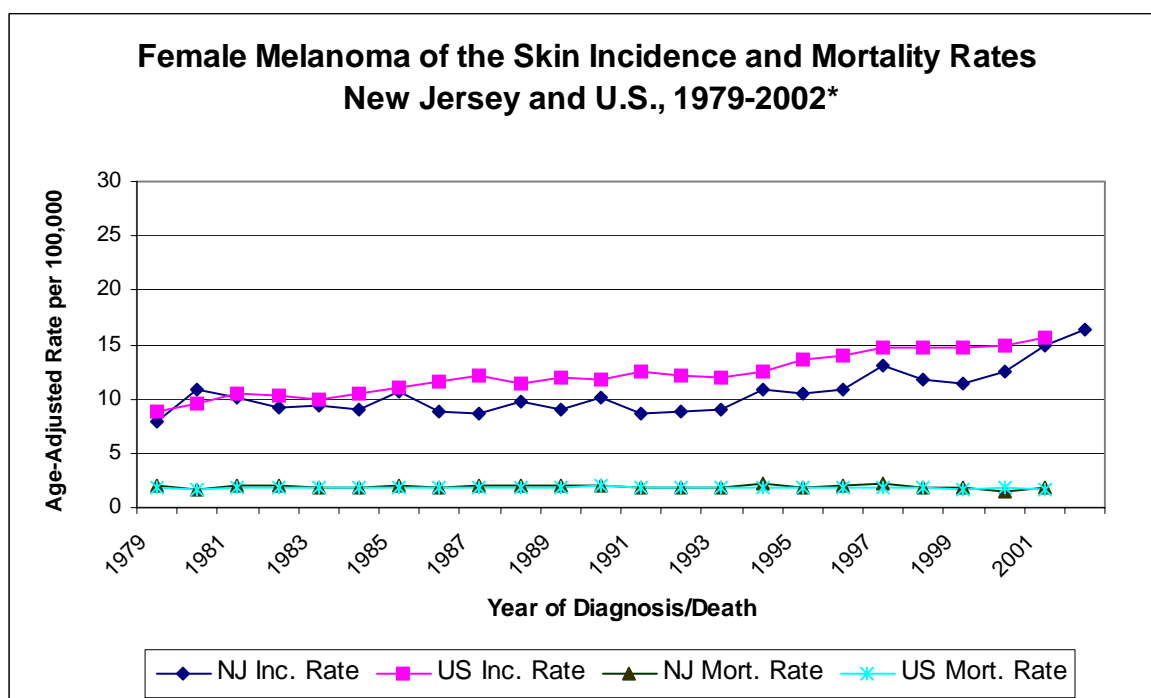
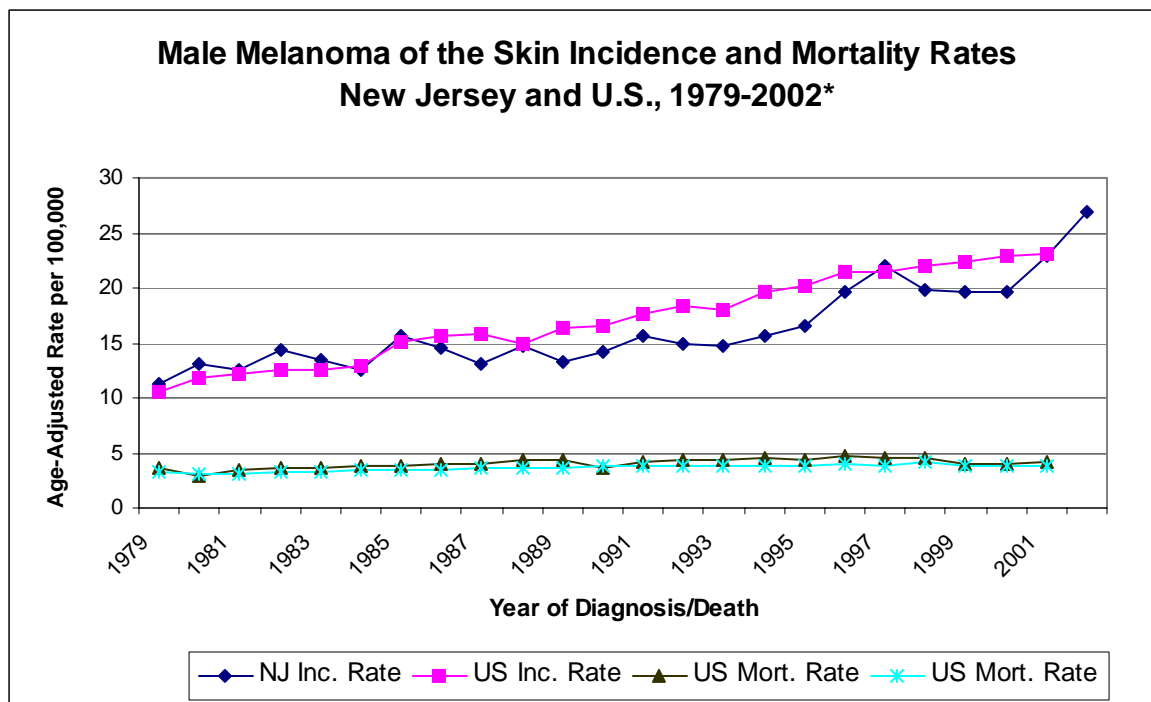
Melanoma of the Skin Incidence

- From 1979 to 2002, melanoma incidence rates more than doubled for New Jersey men and women to about 27 cases and 16 cases per 100,000, respectively.
- U.S. rates also greatly increased between 1979 and 2001. Unlike most other types of cancer, New Jersey rates were lower than U.S. rates for most years since 1984 for men and for every year but 1980 for women.
- The reasons for the increased incidence rates include increased recreational sunlight exposure, early detection and better reporting of melanoma.
- Major risk factors for melanoma of the skin are a prior melanoma, a family history of melanoma, and moles. Other risk factors are sun sensitivity, history of excessive sunlight exposure, history of diseases that suppress the immune system, and occupational exposure to coal tar, pitch, creosote, arsenic compounds or radium.

Melanoma of the Skin Mortality

- In 2001, New Jersey men had a rate of about 4 deaths per 100,000 and women of 2 deaths per 100,000.
- Despite the large increase in melanoma incidence, the melanoma mortality rates remained the same throughout 1979-2001 among New Jersey men and women, due to early detection and improved treatment.
- The New Jersey and U.S. melanoma mortality rates were the same for both men and women.

See Tables 17. and 18. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

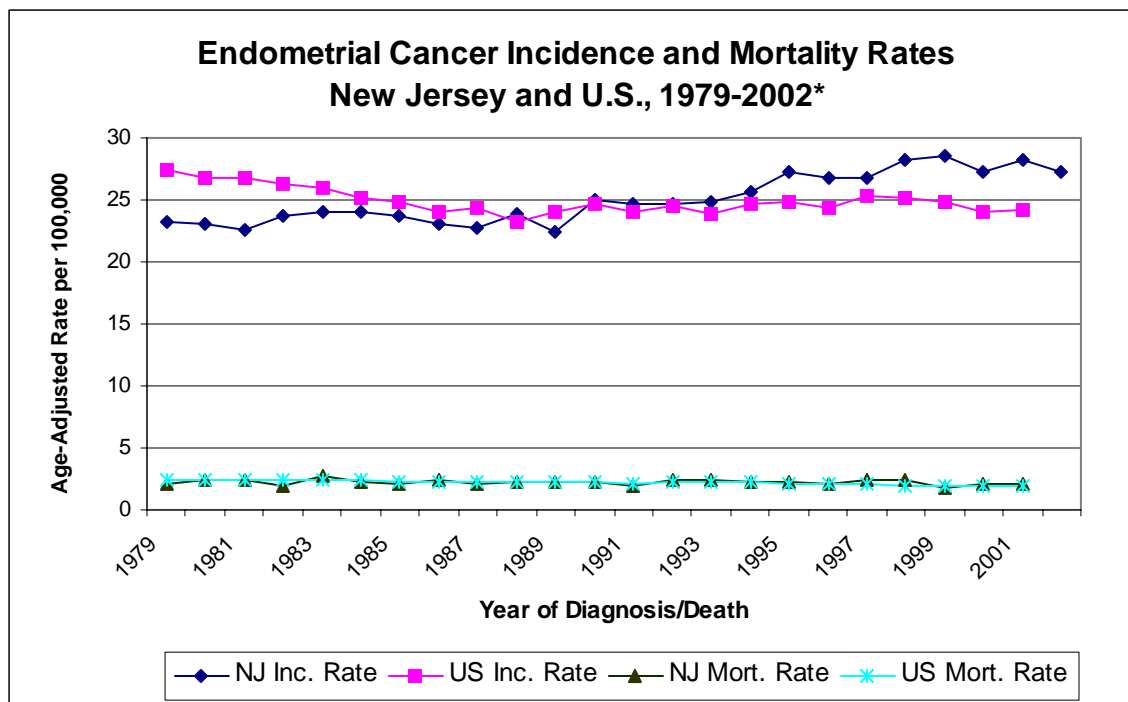
Endometrial Cancer Incidence

- Among New Jersey women endometrial cancer incidence rates rose steadily between 1979 and 1998 to over 27 cases per 100,000. The rates remained relatively stable after 1998.
- In the U.S., endometrial cancer incidence rates steadily declined between 1979 and 1988 then leveled off.
- From 1979 to 1988, New Jersey rates were lower than U.S. rates, but after 1990 the New Jersey rates were greater than the U.S. rates with the difference increasing through 2001.
- The major risk factor is a high lifetime exposure to estrogen, for example, from estrogen replacement therapy without progestin, obesity, early onset of menstruation, late menopause, and never having children. Other risk factors are tamoxifen use, a history of polycystic ovary syndrome, and infertility.

Endometrial Cancer Mortality

- The New Jersey death rate for endometrial cancer stayed the same throughout the years between 1979 and 2001, despite the increase in the incidence rate.
- During 1979 through 2001 the New Jersey death rates for endometrial cancer were very similar to the U.S. death rates.

See Table 19. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.



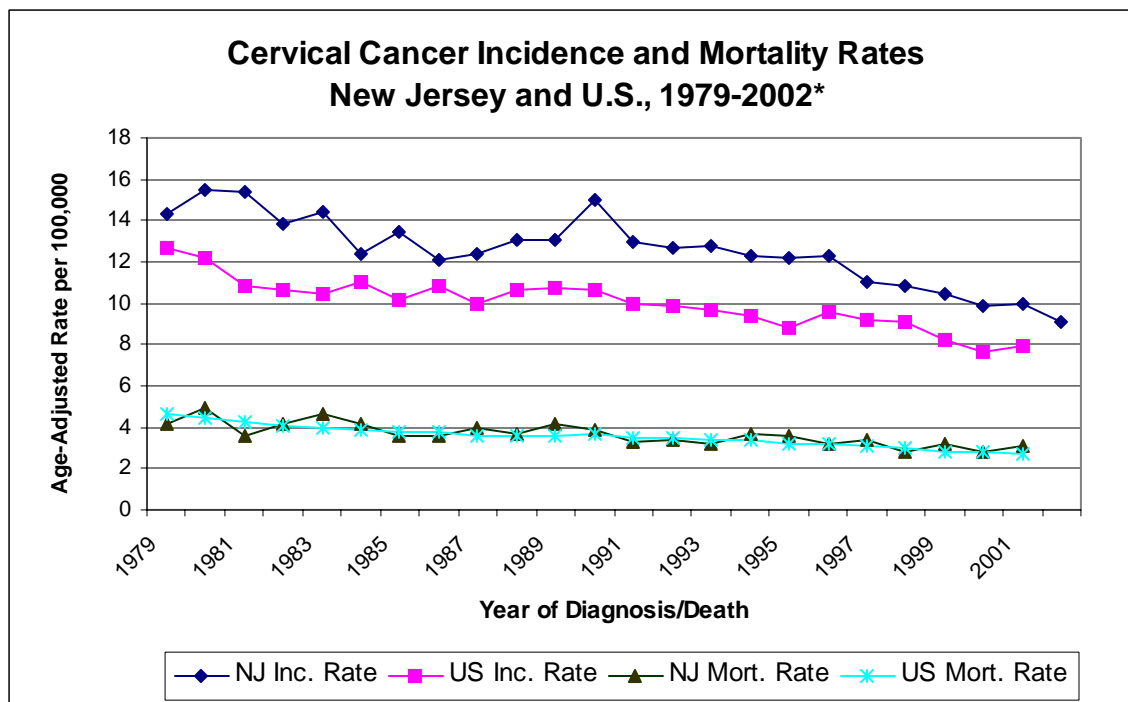
Cervical Cancer Incidence

- There were 426 new cases of cervical cancer diagnosed in New Jersey women in 2002 for a cervical cancer incidence rate of about 9 cases per 100,000 women, a drop of over a third since 1979.
- Although the patterns over time were similar, the New Jersey rates were higher than the U.S. rates throughout 1979-2001.
- The decline in cervical cancer is due to the detection through Pap tests and treatment of *in situ* cervical cancer.
- The main cause of cervical cancer is infection with certain types of human papillomavirus (HPV). Infection with HPV is common in healthy women and does not usually result in cervical cancer. Factors related to the persistence of HPV infection and progression to cervical cancer include immunosuppression, cigarette smoking, and nutritional factors.

Cervical Cancer Mortality

- The 2001 death rate due to cervical cancer in New Jersey women was low, 3 deaths per 100,000, representing a 26% decline since 1979.
- The patterns over time and the death rates of cervical cancer among New Jersey women were virtually the same as for U.S. women.
- Cervical cancer is entirely preventable with early detection using the Pap test.

See Table 20. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.



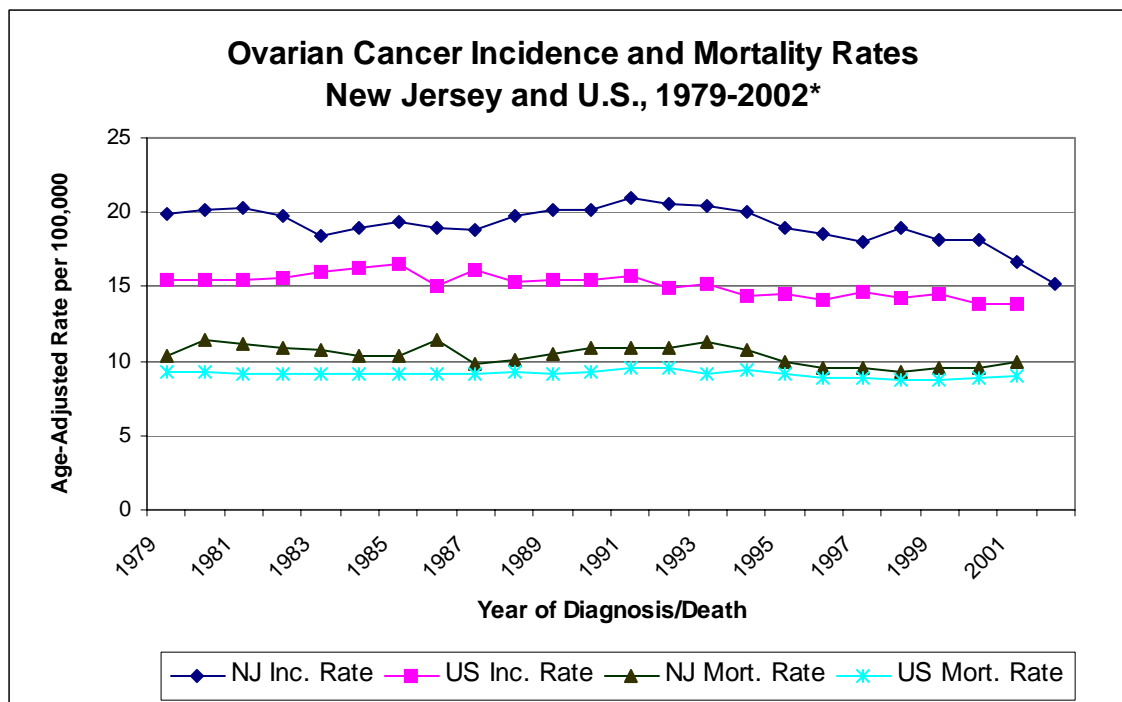
Ovarian Cancer Incidence

- In New Jersey, ovarian cancer incidence declined by over 20 percent between 1979 and 2002, to about 15 cases per 100,000 women. Part of the decreases in 2001 and 2002 are due to borderline ovarian cancer cases not being included because of a change in the coding rules between the International Classification of Diseases for Oncology's (ICD-O) Second and Third Edition.
- Throughout 1979 to 2001, the New Jersey annual incidence rates were much higher than the U.S. annual incidence rates.
- The risk of ovarian cancer increases with age. Other risk factors include a personal or family history of breast cancer or ovarian cancer, mutations in BRCA1 or BRCA2 genes, and the genetic syndrome hereditary nonpolyposis colon cancer. Other possible risk factors are the use of hormone therapy with only estrogen after menopause and increased body weight. Pregnancy, tubal ligation, and oral contraceptive use reduce the risk of ovarian cancer.

Ovarian Cancer Mortality

- The ovarian cancer death rates were fairly stable from 1979 through 2001 at about 10 deaths per 100,000 women.
- During 1979 through 2001, the New Jersey death rates remained slightly higher than the U.S. death rates.

See Table 21. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.



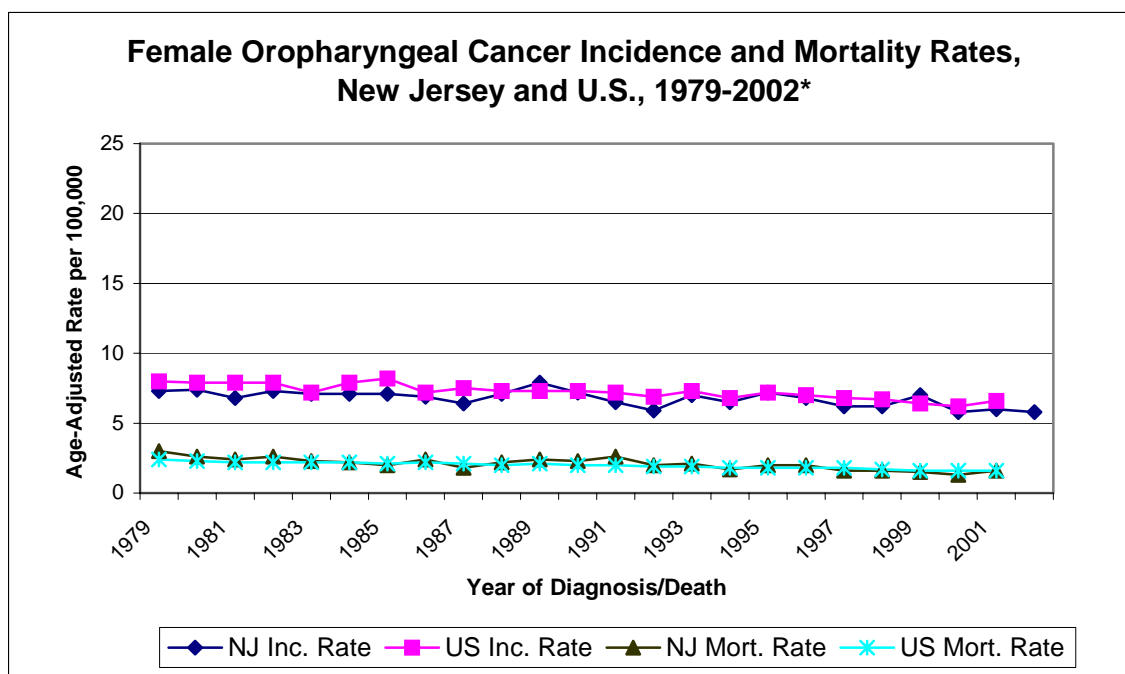
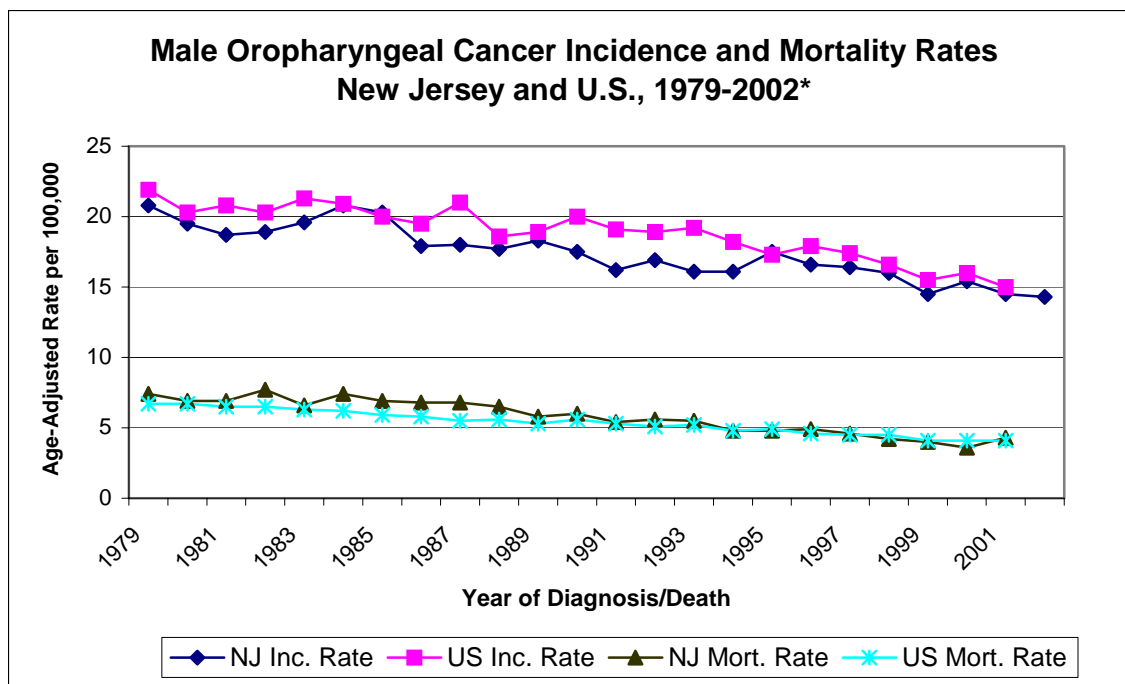
Oropharyngeal (Oral) Cancer Incidence

- Since 1979, the New Jersey incidence of oral cancer decreased by a third for men and a fifth for women, to about 14 and 6 cases per 100,000, respectively, in 2002.
- Although the patterns over time were the same, the annual oral cancer incidence rates for men and women were usually lower in New Jersey than in the U.S.
- The greater decrease in oral cancer incidence among men than women is due to an earlier decrease in smoking among men.
- The risk factors for oral cancer include cigarette, cigar, and pipe smoking, use of smokeless tobacco, and excessive use of alcohol.

Oropharyngeal (Oral) Cancer Mortality

- For New Jersey the oral cancer death rate decreased between 1979 and 2001 by over 40%, to about 4 deaths per 100,000 men and 2 deaths per 100,000 women.
- The New Jersey oral cancer death rates were very similar to the U.S. rates for both men and women.

See Tables 22. and 23. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

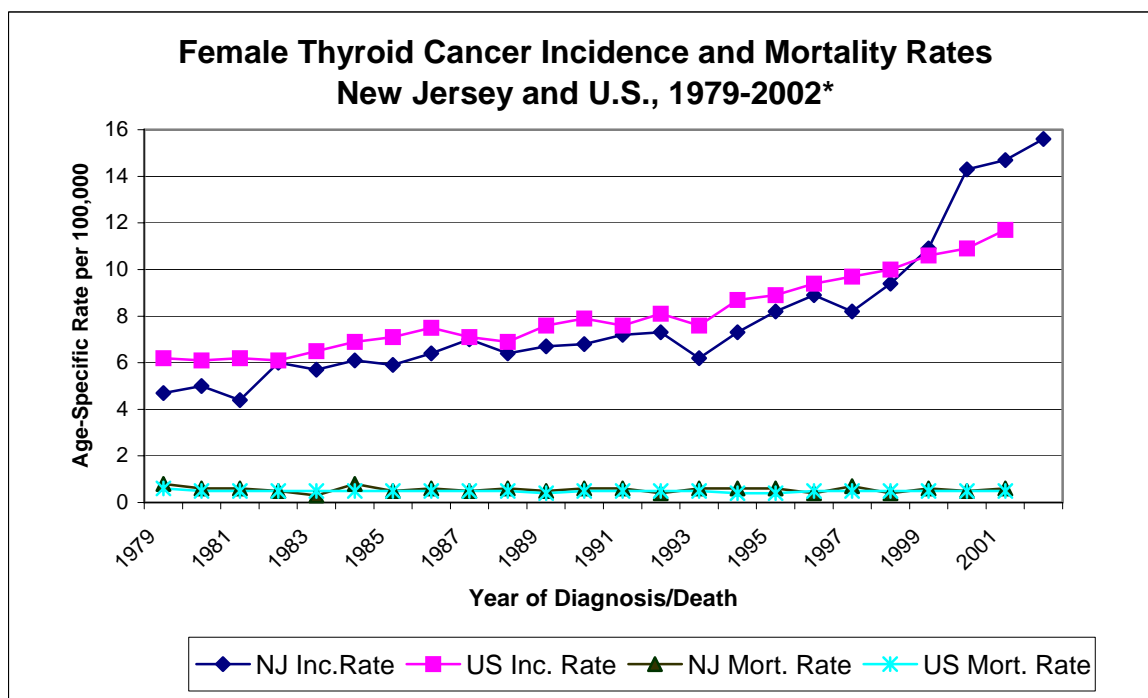
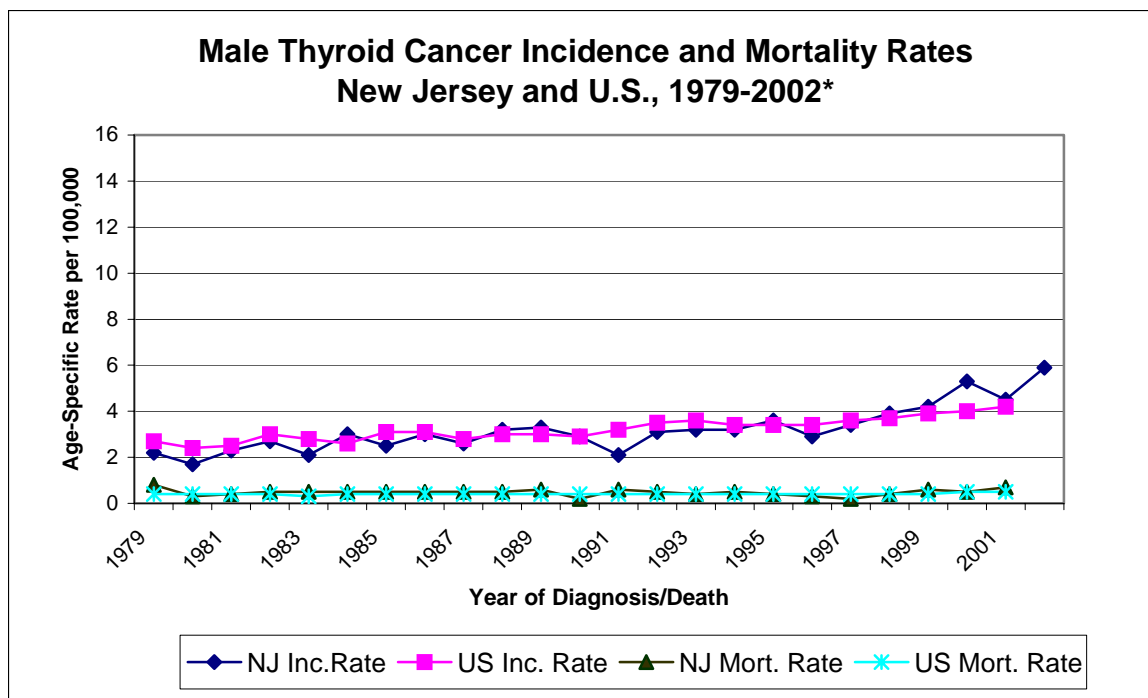
Thyroid Cancer Incidence

- In New Jersey from 1979 to 2002, the thyroid cancer incidence rate in men more than doubled and the incidence rate in women more than tripled, to about 6 cases per 100,000 and 16 cases per 100,000, respectively.
- The annual U.S. incidence rates also increased between 1979 and 2001. The New Jersey incidence rates were generally lower than the U.S. rates until the more recent years when the New Jersey rates jumped higher than the U.S. rates, especially for women.
- The reason(s) for the sharp increase in thyroid cancer incidence rates, especially in recent years, is unknown. Theorized explanations include increased diagnosis of thyroid cancer by medical practitioners and increased prevalence of possible risk factors such as diagnostic radiation and obesity.
- The risk factors for thyroid cancer include high doses of ionizing radiation such as might be received in therapeutic treatment, family history of thyroid diseases, and personal history of goiter and other benign thyroid diseases. Some possible risk factors are diagnostic radiation such as x-rays, endogenous female hormones, oral contraceptive use, a diet high in fish and shellfish, and obesity.

Thyroid Cancer Mortality

- In 2001, the New Jersey death rate was less than 1 case per 100,000 for both men and women.
- Despite the large increases in thyroid cancer incidence, the death rate remained stable between 1979 and 2001 for New Jersey and U.S. men and women.
- The New Jersey and U.S. death rates were about the same throughout 1979 to 2001.

See Tables 24. and 25. in Appendix I for the detailed data.



*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data – Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data – National Center for Health Statistics.

TECHNICAL NOTES

New Jersey State Cancer Registry (NJSCR)

NJSCR Overview

The objectives of the New Jersey State Cancer Registry (NJSCR) are to:

- monitor cancer trends in New Jersey;
- promote scientific research;
- respond to New Jersey residents about cancer concerns;
- educate the public;
- provide information for planning and evaluating cancer prevention and control activities; and
- share and compare cancer data with other states and the nation.

The New Jersey State Cancer Registry is a population-based cancer incidence registry that serves the entire state of New Jersey, which has a population of over 8.4 million people. The NJSCR was established by legislation (NJSA 26:2-104 et. seq.) and includes all cases of cancer diagnosed in New Jersey residents since October 1, 1978. New Jersey regulations (NJAC 8:57A) require the reporting of all newly diagnosed cancer cases to the NJSCR within three months of hospital discharge or six months of diagnosis, whichever is sooner. Reports are filed by hospitals, diagnosing physicians, dentists, and independent clinical laboratories. Every hospital in New Jersey reports cancer cases electronically. In addition, reporting agreements are maintained with New York, Pennsylvania, Delaware, Florida, Maryland, and North Carolina so that New Jersey residents diagnosed with cancer outside the state can be identified. Legislation passed in 1996 strengthened the Registry by: requiring electronic reporting; requiring abstracting by certified tumor registrars; and establishing penalties for late or incomplete reporting.

All primary invasive and *in situ* neoplasms are reportable to the NJSCR, except cervical cancer *in situ* diagnosed after 1994 and certain carcinomas of the skin. The information collected by the NJSCR includes basic patient identifiers, demographic characteristics of the patient, medical information on each cancer diagnosis (such as the anatomic site, histologic type and stage of disease), first course of treatment and vital status (alive or deceased) determined annually. For deceased cases, the underlying cause of death is also included. The primary site, behavior, grade, and histology of each cancer are coded according to the *International Classification of Diseases for Oncology (ICD-O)*, 2nd edition for cancers diagnosed through 2000 and the 3rd edition for cancers diagnosed after 2000. The NJSCR follows the data standards promulgated by the North American Association of Central Cancer Registries (NAACCR), including the use of the Surveillance, Epidemiology, and End Results (SEER) multiple primary rules. An individual may develop more than one cancer. Following the SEER multiple primary rules, patients could therefore be counted more than once if they were diagnosed with two or more primary cancers.

The NJSCR is a member of the North American Association of Central Cancer Registries (NAACCR), an organization that sets standards for cancer registries, facilitates data exchange, and publishes cancer data. The NJSCR has been a participant of the National Program of Cancer Registries (NPCR) sponsored by the Centers for Disease Control and Prevention (CDC) since it began in 1994 and is one of the National Cancer Institute's (NCI) Surveillance, Epidemiology and End Results (SEER) expansion registries.

NJSCR Data Quality

NAACCR has awarded the Gold Standard, the highest standard possible, to the NJSCR for the quality of the data for each year from 1995 through 2002. The NJSCR has consistently achieved the highest level of certification for its data since the inception of this award. The criteria used to judge the quality of the data are completeness of cancer case ascertainment, completeness of certain information on the cancer cases, percent of death certificate only cases, percent of duplicate cases, passing an editing program, and timeliness.

Completeness of reporting to the NJSCR was estimated by comparing New Jersey and U.S. incidence to mortality ratios for whites standardized for age, gender, and cancer site. The data used to generate these ratios were the cancer incidence rates for all SEER registries combined. Using these standard formulae, it is possible for the estimation of completeness to be greater than 100 percent. For the NJSCR 2002 data, the completeness of case reporting was estimated as 102.4 percent at the time this report was prepared.

While our estimates of completeness are very high, some cases of cancer among New Jersey residents who were diagnosed and/or treated in out-of-state facilities may not yet have been reported to the NJSCR by other state registries. This should be considered in interpreting the data for the more recent years. However, these relatively few cases will not significantly affect the cancer rates, or alter the overall trends presented in this report.

Other 2002 cancer incidence data quality indicators measured were as follows:

- percent death-certificate-only cases - 1.7 percent;
- percent of unresolved duplicates - < 0.1 percent;
- percent of cases with unknown race - 1.6 percent;
- percent of cases with unknown county - 0.09 percent;
- number of cases with unknown age - 9; and
- number of cases with unknown gender - 9.

It should also be noted that there may be minor differences in the New Jersey incidence rates in this report compared to previous reports, due to ongoing editing and review of the data. The 2002 incidence rates presented here are expected to increase by the time all data are complete, and therefore, are considered preliminary.

The NJSCR continues to work toward improving the quality and number of its reporting sources. Over the past few years, significant improvements have been realized in this regard. For example some of these improvements have resulted in better reporting of skin cancers such as melanoma,

which may explain some of the increases seen in the incidence of this cancer. One of the most significant improvements has been the implementation of electronic pathology laboratory reporting (E-path) from a national pathology laboratory and several hospital-based laboratories. The ultimate goal is to enable E-path laboratory reporting from every laboratory that serves New Jersey. E-path reporting is expected to improve the timeliness and completeness of cancer reporting, especially for non-hospitalized cases.

In order to minimize the number of cases with an unknown county of residence, the NJSCR runs all addresses through a standardization and geocoding process. Cases are also followed back to physicians and hospitals to verify address data. For this report, cases where the county of residence is unknown have been excluded. This is a change from previous reports, in which cases with unknown county were included. This change was made so that NJSCR methods are in accordance with the standard procedures used by SEER. The effect of this change on the incidence rates is very small. For example, the total number of cases with unknown county for 1998-2002 is 223, which represents 0.09% of the total case population.

Data Sources and Specifications For This Report

Data Sources

New Jersey cancer incidence data were taken from the November, 2004 analytic file of the New Jersey State Cancer Registry. U.S. cancer incidence data were obtained from the SEER database SEER 9 Registries Public-Use, Nov 2003 Sub (1973-2001), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2004, based on the November 2003 submission. The SEER U.S. cancer incidence data are from nine registries in the U.S. that cover about ten percent of the U.S. population. While these data are considered representative of the entire U.S., a recent study indicates that the SEER coverage population may not be representative of the entire U.S. population for certain cancer types; specifically, tobacco-related cancers are under-represented. At the time of the preparation of this report, year 2002 U.S. incidence data were not available.

New Jersey and U.S. cancer mortality data were obtained from the SEER database - Mortality – All COD, Public-Use with State, Total U.S. (1969-2001), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2004. The underlying mortality data were from the National Center for Health Statistics (NCHS). The website for SEER is www.seer.cancer.gov and for NCHS is www.cdc.gov/nchs. At the time of the preparation of this report, year 2002 mortality data were unavailable.

The 1979-2001 population data used in this report are estimates from the U.S. Census Bureau and were downloaded from SEER's website <http://seer.cancer.gov/popdata/>. Since the 2002 population data were not available at the time the 2002 New Jersey incidence rates were calculated, 2001 population data were used for 2002. All the counts and rates were tabulated using SEER*Stat, a statistical software package distributed by the National Cancer Institute - <http://seer.cancer.gov/ScientificSystems/SEERStat/>.

Data Specifications

Out-of-state residents and cases whose residence in New Jersey could not be confirmed (unknown county) were excluded from the New Jersey incidence rates and counts, as were persons of unknown age and/or gender. Only invasive cancers were included in the incidence data, except *in situ* bladder cancers were included.

Beginning with the year 2001, the coding scheme for incident cancer cases changed from the *International Classification of Diseases for Oncology*, 2nd edition (ICD-0-2) to the 3rd edition (ICD-0-3). The following SEER web link contains additional information on the transition from ICD-0-2 to ICD-0-3:

http://training.seer.cancer.gov/module_icdo3/downloadables/ICDO3%20abstract%20n%20article%20NEW%20PDF.pdf. The primary effect of the coding change is that borderline ovarian cancer cases were not included in the 2001 and 2002 data, but were included for the previous years, 1979-2000, for both New Jersey and the U.S. This resulted in about 100 fewer cases per year included for 2001 and 2002 in New Jersey.

Beginning with the year 1999, coding and classification for cause of death is in accordance with the 10th edition of the World Health Organization's *International Classification of Diseases* (ICD-10). From 1979-1998, cause of death coding is based on the 9th edition (ICD-9). Changes in classification detail, coding rules, and classification code numbers with this new version have caused some discontinuities in trends for cancer deaths. Although these discontinuities vary, research has found that using ICD-10 assigns approximately 0.7 percent more deaths to the category of cancer, which may slightly increase some site-specific mortality rates for 1999 and later.

Calculation of Rates

Age-adjusted Rates and the Year 2000 Standard

The U.S. Department of Health and Human Services requires that health data be age-adjusted using the U.S. year 2000 population as a standard, beginning with the 1999 reporting year. Age-adjustment to the year 2000 population as the standard was first used in one of our earlier reports, *Cancer Incidence and Mortality in New Jersey 1996-2000*, issued in December 2002. Prior to the release of 1999 data, various federal and state agencies calculated disease rates using different U.S. population standards, including the 1940 and 1970 standard populations. Our report *Cancer Incidence and Mortality in New Jersey, 1995-1999*, issued in September 2001, used the former 1970 population standard for all five years and also illustrated the effect on 1999 incidence rates of changing the population standard from 1970 to 2000.

Calculations using the 2000 standard population do not indicate a change in cancer incidence or occurrence - only a different representation of the rates of reported cancer. Using the 2000 population as the standard produces standardized cancer rates that appear to be about 20 percent higher than previously reported.

Rate Calculation Formulas

A cancer incidence rate is defined as the number of new cases of cancer detected during a specified time period in a specified population. Cancer rates are most commonly expressed as cases per 100,000 population. Cancer occurs at different rates in different age groups, and population subgroups defined by gender and race have different age distributions. Therefore, before a valid comparison can be made between rates, it is necessary to standardize the rates to the age distribution of a standard population. In this report, the 2000 U.S. standard million population was used.

The first step in the age-standardization procedure is to determine the age-specific rates. For each age group for a given time interval (within each gender group, for the entire state), the following formula was applied:

$$r_a = \frac{n_a}{t \times P_a}$$

where:

- r_a = the age-specific rate for age group a,
- n_a = the number of events (cancer diagnoses) in the age group during the time interval,
- t = the length of the time interval (in years), and
- P_a = average size of the population in the age group during the time interval (mid-year population or average of mid-year population sizes).

In order to determine the age-adjusted rate, a weighted average of the age-specific rates is calculated, using the age distribution of the standard population to derive the age-specific weighting factors (Rothman, 1986). This is the technique of direct standardization, which uses the following formula:

$$R = \frac{\sum_{a=1}^n r_a \times Std. P_a}{\sum_{a=1}^n Std. P_a}$$

where:

- R = the age-adjusted rate
- r_a = the age-specific rate for age group a, and
- $Std.P_a$ = the size of the standard population in each age group a.

While age standardization facilitates the comparison of rates among different populations and different years, there can be important age-specific differences in disease occurrence, which are not apparent in comparisons of the age-adjusted rates (Breslow and Day, 1987).

Analogous definitions and calculations apply for cancer mortality rates.

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GLOSSARY

- Tumor:** An abnormal growth of tissue; benign or malignant.
- Cancer:** A group of more than 100 diseases characterized by uncontrolled growth and spread of abnormal cells.
- Carcinogen:** Any substance that causes cancer or helps cancer to develop.
- Risk factor:** Anything that increases a person's chance of getting a disease such as cancer.
- Diagnosis:** Identifying a disease by its signs, symptoms, and laboratory findings; usually the earlier a diagnosis of cancer is made, the better the chance for cure.
- Primary Site:** The site in the body where the cancer began; usually cancer is named after the organ in which it started, e.g. breast cancer. It is possible to have more than one primary cancer or multiple primaries at the same time.
- Metastasis:** The spread of cancer cells to distant areas of the body through the lymph system or bloodstream.
- Epidemiology:** The study of patterns of the occurrence of disease in human populations and the factors that influence these patterns.
- Incidence:** The number of newly diagnosed cases of disease occurring in a specific population during a specific time period.
- Incidence rate (or crude incidence rate):** The number of newly diagnosed cases of disease in a specific population during a specific time period per "x" number of people. Usually the time period is one year and the "x" number of people is 100,000.
- **Age-specific incidence rate:** The number of newly diagnosed cases of a disease in a specific age group in a specific population over a specific time period per "x" number of people in the specific age group. Usually five-year age groups (0-4, 5-9, 10-14, etc.) are used. The time period is usually one year and the "x" number of people is 100,000.
 - **Age-standardization (or age-adjustment):** The statistical adjustment of crude rates for differences in age distributions in order to compare rates in different populations. There are two types of standardization, direct and indirect.

- **Age-adjusted incidence rate:** A summary incidence rate that takes into account the age distribution of the population. This is routinely done so that comparisons can be made from year to year. Age-adjustment also enables comparisons among geographic areas. There are several methods to age-adjust; direct standardization is the method most commonly used. With this method, the age-specific incidence rates of the populations of interest (e.g. New Jersey) are applied to a standard population (e.g. 2000 U.S. standard population).

Mortality: The number of deaths due to a disease in a specific population over a specific time period.

Mortality rate, age-specific mortality rate, and age-adjusted mortality rate: Analogous to the incidence rate, age-specific incidence rate, and age-adjusted incidence rate, except deaths rather than newly diagnosed cases are the numerator.

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APPENDIX I

Cancer Incidence and Mortality Data Tables

TABLE 1.
Number and Proportion of Male Total Cancer Incidence by Most Frequent Site
New Jersey, 1979 and 2002*

Cancer Site	Males		Males	
	1979		2002*	
	#	%	#	%
Melanoma	355	2.2%	1,038	4.3%
Kidney	389	2.4%	757	3.1%
Leukemia	501	3.1%	586	2.4%
Non-Hodgkin Lymphoma	515	3.2%	953	3.9%
Stomach	534	3.3%	530	2.2%
Oropharyngeal	654	4.1%	565	2.3%
Bladder	1,305	8.2%	1,601	6.6%
Colorectal	2,536	15.9%	2,665	11.0%
Prostate	2,574	16.1%	8,185	33.7%
Lung	3,390	21.2%	3,135	12.9%
All Other	3,223	20.2%	4,246	17.5%
Total	15,976	100.0%	24,261	100.0%

*Percentages are rounded. 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers except for *in situ* bladder cancers. Data source: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services.

TABLE 2.
Number and Proportion of Male Total Cancer Mortality by Most Frequent Site
New Jersey, 1979 and 2001*

Cancer Site	Males		Males	
	1979		2001	
	#	%	#	%
Esophagus	226	2.8%	298	3.3%
Oropharyngeal	229	2.8%	167	1.9%
Non-Hodgkin Lymphoma	260	3.2%	370	4.1%
Urinary Bladder	305	3.8%	278	3.1%
Leukemia	321	3.9%	313	3.5%
Stomach	348	4.3%	265	3.0%
Pancreas	413	5.1%	462	5.2%
Prostate	738	9.1%	996	11.2%
Colorectal	1,133	13.9%	947	10.6%
Lung	2,576	31.6%	2,605	29.2%
Other	1,594	19.6%	2,227	24.9%
Total	8,143	100.0%	8,928	100.0%

*Percentages are rounded

Data source: New Jersey mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 3.
Number and Proportion of Female Total Cancer Incidence by Most Frequent Site
New Jersey, 1979 and 2002*

Cancer Site	Females		Females	
	1979		2002*	
	#	%	#	%
Thyroid	177	1.1%	711	3.2%
Melanoma	301	1.9%	785	3.5%
Pancreas	395	2.5%	566	2.6%
Non-Hodgkin Lymphoma	459	2.9%	865	3.9%
Bladder	478	3.0%	632	2.8%
Ovarian	774	4.9%	751	3.4%
Endometrial	947	5.9%	1,339	6.0%
Lung	1,463	9.2%	2,788	12.6%
Colorectal	2,666	16.7%	2,747	12.4%
Breast	4,461	28.0%	6,344	28.6%
All Other	3,823	24.0%	4,688	21.1%
Total	15,944	100.0%	22,216	100.0%

*Percentages are rounded. 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers except for *in situ* bladder cancers. Data source: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services.

TABLE 4.
Number and Proportion of Female Total Cancer Mortality by Most Frequent Site
New Jersey, 1979 and 2001*

Cancer Site	Females		Females	
	1979		2001	
	#	%	#	%
Cervix Uteri	165	2.3%	150	1.6%
Non-Hodgkin Lymphoma	199	2.8%	360	3.9%
Uterine	219	3.1%	289	3.1%
Leukemia	252	3.5%	303	3.3%
Stomach	268	3.8%	186	2.0%
Pancreas	350	4.9%	553	6.0%
Ovary	415	5.8%	510	5.5%
Lung	1,020	14.3%	2,093	22.7%
Colorectal	1,187	16.7%	1,068	11.6%
Breast	1,464	20.6%	1,467	15.9%
Other	1,578	22.2%	2,257	24.4%
Total	7,117	100.0%	9,236	100.0%

*Percentages are rounded.

Data source: New Jersey mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 5.

**Male Total Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	557.5	15,976	296.0	8,143	496.3	268.7	220,014
1980	569.4	16,430	293.4	8,185	505.4	271.1	225,943
1981	558.0	16,201	291.6	8,248	510.5	269.8	227,874
1982	562.7	16,664	290.8	8,344	510.7	272.9	233,849
1983	570.7	17,124	297.9	8,682	519.6	274.1	238,367
1984	562.8	16,968	301.0	8,790	524.9	275.1	242,790
1985	567.6	17,538	301.2	8,951	530.5	275.7	246,917
1986	568.1	17,651	295.2	8,858	537.8	276.0	250,558
1987	573.1	17,989	297.9	9,032	562.8	276.3	254,655
1988	590.9	18,764	292.1	8,903	557.8	276.9	258,092
1989	580.6	18,505	300.0	9,210	566.5	278.5	263,323
1990	612.4	19,785	299.7	9,264	592.0	279.8	268,292
1991	652.8	21,396	294.3	9,243	636.6	279.1	272,396
1992	703.5	23,550	284.7	9,062	657.1	276.5	274,843
1993	669.2	22,659	289.1	9,307	621.0	275.9	279,401
1994	627.3	21,577	286.4	9,323	588.4	272.1	280,479
1995	628.8	22,008	280.4	9,270	569.4	268.5	281,635
1996	632.0	22,289	275.8	9,231	568.9	263.7	281,916
1997	639.5	22,840	263.2	8,920	571.9	258.1	281,128
1998	634.6	23,064	260.5	9,009	568.2	253.6	282,079
1999	623.0	22,888	258.2	9,056	573.3	252.8	285,826
2000	625.3	23,336	249.1	8,868	567.8	248.1	286,072
2001	644.2	24,412	246.2	8,928	552.9	243.5	287,068
2002	639.5	24,261	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers except for *in situ* bladder cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 6.

**Female Total Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	408.0	15,944	181.1	7,117	365.2	163.1	183,374
1980	416.5	16,539	184.5	7,378	367.6	165.8	190,554
1981	422.9	16,970	184.8	7,500	376.8	165.9	194,206
1982	425.8	17,339	186.8	7,718	376.0	167.4	199,920
1983	420.1	17,386	189.1	7,916	380.4	168.3	204,590
1984	412.9	17,262	187.7	7,953	392.0	170.5	210,698
1985	428.7	18,063	188.8	8,114	402.7	171.0	214,646
1986	429.9	18,327	190.2	8,238	401.9	171.6	218,807
1987	437.4	18,872	185.3	8,128	413.0	171.5	222,277
1988	449.3	19,593	187.9	8,348	408.9	172.5	226,964
1989	449.2	19,658	196.2	8,784	408.0	174.3	232,857
1990	462.8	20,413	191.6	8,666	414.7	174.7	237,047
1991	458.4	20,391	195.2	8,935	418.0	175.3	242,288
1992	454.9	20,542	189.5	8,805	414.3	174.4	245,743
1993	453.1	20,675	190.4	9,001	407.8	174.5	250,523
1994	446.0	20,534	190.1	9,054	412.6	174.1	253,858
1995	449.5	20,929	189.6	9,159	413.5	173.4	256,852
1996	450.1	21,133	186.0	9,082	416.3	171.2	257,652
1997	460.0	21,919	186.6	9,238	426.2	169.0	258,476
1998	463.3	22,356	179.2	9,026	430.8	166.9	259,490
1999	451.4	22,012	178.7	9,121	426.1	167.2	264,003
2000	453.0	22,305	178.0	9,204	415.0	166.6	267,008
2001	457.3	22,807	176.4	9,236	410.5	164.1	266,692
2002	444.8	22,216	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers except for *in situ* bladder cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 7.

**Female Breast Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	116.3	4,461	37.4	1,464	102.1	31.2	34,395
1980	121.3	4,710	38.8	1,539	102.1	31.7	35,640
1981	124.8	4,899	37.2	1,477	106.3	31.9	36,479
1982	125.6	4,983	38.5	1,566	106.4	32.2	37,411
1983	121.6	4,903	36.9	1,526	111.1	32.1	37,977
1984	120.5	4,933	39.1	1,609	115.8	32.9	39,470
1985	128.0	5,270	40.4	1,692	124.0	33.0	40,090
1986	130.4	5,423	38.2	1,613	126.7	32.9	40,534
1987	138.7	5,854	37.2	1,601	134.4	32.7	40,896
1988	142.9	6,055	37.6	1,626	131.2	33.2	42,169
1989	138.4	5,890	39.5	1,728	127.1	33.2	42,836
1990	143.9	6,192	37.3	1,642	131.6	33.1	43,389
1991	139.9	6,039	40.0	1,778	133.5	32.7	43,582
1992	141.3	6,202	36.7	1,649	131.9	31.6	43,063
1993	138.2	6,112	34.4	1,581	129.1	31.4	43,554
1994	135.7	6,067	34.8	1,610	130.6	30.9	43,644
1995	136.4	6,179	33.4	1,572	132.2	30.6	43,843
1996	136.7	6,231	32.7	1,550	133.3	29.5	43,090
1997	141.5	6,552	33.4	1,599	137.3	28.2	41,943
1998	140.6	6,617	30.8	1,514	140.6	27.5	41,736
1999	139.3	6,630	28.8	1,436	140.1	26.6	41,144
2000	137.6	6,618	30.9	1,567	135.0	26.6	41,872
2001	134.7	6,582	28.7	1,467	134.8	25.9	41,394
2002	129.8	6,344	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 8.

**Prostate Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	101.5	2,574	32.5	738	103.4	32.8	22,239
1980	107.0	2,723	34.9	786	105.9	33.1	22,880
1981	106.7	2,701	32.4	744	108.8	33.2	23,370
1982	105.1	2,754	34.5	806	108.2	33.4	24,013
1983	107.4	2,868	36.0	854	111.5	33.9	24,954
1984	109.5	2,984	37.2	884	111.6	34.1	25,399
1985	105.7	3,003	35.4	876	115.4	33.9	25,940
1986	108.5	3,081	35.7	921	118.9	34.9	27,261
1987	114.7	3,302	34.9	896	133.5	35.1	27,863
1988	121.4	3,583	35.2	909	137.4	35.9	28,980
1989	122.5	3,679	41.2	1,085	145.2	37.1	30,519
1990	147.6	4,523	41.7	1,126	170.5	38.6	32,376
1991	191.3	6,103	39.5	1,078	214.5	39.3	33,563
1992	245.9	8,129	40.0	1,108	236.9	39.2	34,238
1993	220.1	7,409	42.1	1,180	208.9	39.3	34,865
1994	190.8	6,553	38.2	1,085	179.8	38.5	34,901
1995	187.4	6,573	38.9	1,139	168.3	37.3	34,475
1996	192.5	6,813	37.1	1,127	168.0	36.0	34,122
1997	201.8	7,225	34.0	1,027	172.1	34.1	32,889
1998	186.2	6,777	33.7	1,047	169.1	32.6	32,203
1999	194.6	7,186	30.5	966	180.5	31.6	31,728
2000	201.9	7,575	29.5	959	178.9	30.3	31,078
2001	211.0	8,042	30.0	996	176.8	29.1	30,719
2002	214.3	8,185	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 9.

**Male Lung Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	112.1	3,390	88.1	2,576	95.8	82.9	72,712
1980	112.9	3,459	87.2	2,626	99.9	84.7	75,422
1981	110.7	3,406	90.8	2,735	99.4	85.2	76,650
1982	111.0	3,448	90.0	2,735	100.7	86.8	79,107
1983	109.8	3,509	90.2	2,811	99.5	87.0	80,235
1984	106.5	3,394	89.3	2,787	102.1	88.2	82,385
1985	112.7	3,599	93.0	2,918	98.7	88.5	83,754
1986	108.5	3,510	90.9	2,865	99.1	89.0	84,961
1987	107.8	3,511	90.4	2,892	101.6	90.0	87,164
1988	110.9	3,631	88.5	2,823	98.9	89.9	87,962
1989	103.9	3,423	87.5	2,827	98.1	89.8	88,973
1990	107.3	3,535	90.2	2,916	97.2	90.6	91,012
1991	105.2	3,521	85.6	2,814	97.6	89.9	91,600
1992	102.1	3,475	83.2	2,780	97.5	88.0	91,318
1993	100.4	3,427	86.3	2,903	94.1	87.6	92,489
1994	97.0	3,344	79.2	2,695	91.2	85.7	91,819
1995	95.2	3,330	79.0	2,707	90.0	84.4	91,798
1996	95.6	3,357	79.5	2,735	88.0	82.8	91,554
1997	95.3	3,394	75.0	2,610	86.4	81.3	91,277
1998	96.6	3,483	77.0	2,737	88.0	79.9	91,397
1999	88.2	3,228	72.2	2,601	84.3	77.0	89,399
2000	88.1	3,265	70.8	2,577	81.1	76.4	90,410
2001	84.3	3,158	70.5	2,605	77.7	75.1	90,363
2002	83.7	3,135	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 10.

**Female Lung Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	36.3	1,463	25.3	1,020	31.6	22.3	25,605
1980	37.1	1,515	26.5	1,083	32.2	24.1	28,252
1981	36.1	1,508	26.4	1,104	35.1	24.9	29,739
1982	39.7	1,675	28.5	1,213	36.7	26.5	32,117
1983	40.1	1,723	32.6	1,393	37.8	28.1	34,616
1984	41.8	1,806	31.2	1,361	39.5	28.9	36,180
1985	43.5	1,878	32.3	1,420	40.2	30.4	38,641
1986	44.3	1,952	34.7	1,525	42.3	31.4	40,415
1987	46.3	2,054	34.5	1,538	44.2	32.7	42,702
1988	49.9	2,241	35.3	1,591	46.3	34.1	45,169
1989	50.2	2,264	38.8	1,762	46.2	35.8	48,040
1990	52.4	2,368	39.3	1,793	47.8	36.8	50,134
1991	52.6	2,390	40.8	1,875	49.6	37.6	52,020
1992	51.4	2,379	39.3	1,829	49.9	38.7	54,483
1993	52.9	2,461	39.6	1,872	49.2	39.3	56,231
1994	52.4	2,461	40.4	1,915	50.6	39.6	57,535
1995	53.3	2,536	41.6	1,992	50.4	40.3	59,301
1996	55.4	2,651	42.4	2,048	51.2	40.4	60,348
1997	55.4	2,690	43.0	2,113	52.5	40.8	61,922
1998	56.4	2,775	41.7	2,082	52.8	41.0	63,075
1999	55.6	2,759	39.7	2,002	52.1	40.2	62,662
2000	55.1	2,760	41.3	2,105	50.6	41.1	65,016
2001	55.7	2,832	40.6	2,093	49.1	40.9	65,606
2002	55.0	2,788	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 11.

**Male Colorectal Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	91.4	2,536	43.4	1,133	74.1	33.6	26,056
1980	97.5	2,717	44.0	1,172	74.5	33.7	26,665
1981	95.1	2,676	41.0	1,094	75.8	33.0	26,500
1982	91.8	2,677	39.4	1,076	75.1	33.0	26,914
1983	95.3	2,764	43.4	1,192	75.6	33.1	27,487
1984	93.6	2,736	43.1	1,216	77.6	33.0	27,989
1985	96.0	2,925	41.9	1,212	79.0	32.7	28,152
1986	95.9	2,899	38.9	1,118	77.8	32.0	27,969
1987	95.9	2,942	40.1	1,157	77.6	31.9	28,337
1988	94.9	2,936	38.2	1,143	75.2	31.1	27,985
1989	91.8	2,835	36.7	1,112	74.9	30.8	28,123
1990	91.5	2,909	38.4	1,128	74.4	30.8	28,481
1991	90.7	2,883	36.7	1,107	73.0	29.6	28,025
1992	87.4	2,825	34.9	1,087	70.4	29.3	28,275
1993	82.2	2,727	33.0	1,049	68.5	28.6	28,196
1994	78.3	2,621	34.3	1,100	66.4	28.3	28,471
1995	78.9	2,687	33.4	1,092	63.7	27.7	28,409
1996	80.2	2,736	33.7	1,111	65.4	26.7	27,989
1997	80.0	2,781	29.6	981	68.0	26.2	28,075
1998	80.5	2,855	27.2	923	66.7	25.6	28,023
1999	78.7	2,810	28.7	988	65.2	25.5	28,313
2000	75.6	2,743	28.4	993	63.0	25.0	28,484
2001	72.6	2,694	26.3	947	60.6	24.2	28,229
2002	71.8	2,665	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 12.

**Female Colorectal Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	67.8	2,666	30.3	1,187	54.5	24.6	27,662
1980	65.1	2,626	27.6	1,106	56.5	24.4	28,016
1981	69.0	2,803	30.3	1,225	56.4	24.0	28,106
1982	63.3	2,648	29.0	1,198	54.5	23.6	28,283
1983	65.3	2,764	29.6	1,238	55.6	23.2	28,500
1984	64.4	2,756	28.2	1,208	56.0	23.6	29,521
1985	67.1	2,898	27.5	1,187	57.4	23.1	29,434
1986	63.6	2,807	25.5	1,116	54.7	22.3	28,893
1987	64.0	2,840	26.3	1,165	52.6	22.0	28,914
1988	63.5	2,864	26.1	1,173	51.8	21.5	28,779
1989	63.6	2,872	25.6	1,161	52.5	21.2	28,900
1990	63.1	2,893	24.2	1,116	51.2	20.6	28,673
1991	61.2	2,840	24.2	1,127	50.0	20.3	28,751
1992	57.9	2,739	22.8	1,092	49.2	19.9	28,714
1993	57.3	2,742	22.9	1,111	48.3	19.8	29,202
1994	55.5	2,684	23.5	1,151	47.7	19.3	28,936
1995	55.1	2,689	22.0	1,096	46.9	19.1	29,235
1996	54.3	2,696	21.2	1,073	46.6	18.5	28,765
1997	55.7	2,793	19.8	1,021	47.9	18.1	28,619
1998	56.8	2,891	20.4	1,061	49.2	18.0	28,950
1999	52.8	2,704	19.8	1,054	47.7	17.8	28,909
2000	53.3	2,772	19.1	1,032	46.2	17.5	28,950
2001	53.7	2,811	19.6	1,068	44.8	17.0	28,579
2002	52.3	2,747	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 13.

**Male Non-Hodgkin Lymphoma Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	17.3	515	9.0	260	14.2	7.4	6,230
1980	16.1	493	7.3	212	15.0	7.5	6,417
1981	16.6	517	8.1	235	15.9	7.4	6,375
1982	15.9	508	7.8	243	15.5	8.0	6,979
1983	18.0	560	9.1	275	16.5	8.1	7,223
1984	17.6	561	9.2	280	18.3	8.2	7,319
1985	18.1	579	8.8	268	18.3	8.8	8,002
1986	18.9	614	9.1	292	19.4	9.0	8,362
1987	19.3	637	10.4	323	20.8	8.8	8,248
1988	19.5	655	10.0	315	21.3	9.3	8,776
1989	21.8	712	10.0	310	21.6	9.7	9,326
1990	22.3	756	11.0	352	23.0	10.0	9,704
1991	21.9	763	10.3	350	23.7	10.1	10,078
1992	22.3	782	10.7	357	23.1	10.3	10,459
1993	23.1	810	9.6	321	23.5	10.1	10,458
1994	24.4	864	11.4	387	24.9	10.8	11,280
1995	25.5	919	12.1	422	25.3	10.8	11,597
1996	26.8	959	11.6	394	24.1	10.9	11,904
1997	25.3	922	12.1	426	24.3	11.0	12,286
1998	27.4	1,014	12.2	428	22.7	10.9	12,205
1999	25.5	954	11.0	386	24.1	10.4	11,794
2000	24.7	934	11.0	396	23.7	10.2	11,812
2001	27.0	1,035	10.0	370	23.1	9.9	11,710
2002	25.0	953	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 14.

**Female Non-Hodgkin Lymphoma Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	11.6	459	5.0	199	11.2	4.9	5,560
1980	11.2	451	5.4	219	10.8	5.3	6,127
1981	11.2	454	5.1	205	11.8	5.3	6,237
1982	12.2	506	5.4	221	11.6	5.5	6,599
1983	13.1	549	5.9	249	12.0	5.6	6,847
1984	11.9	492	5.0	207	12.8	5.8	7,175
1985	12.1	532	6.0	263	13.2	5.8	7,367
1986	14.0	589	6.1	262	13.0	6.0	7,822
1987	13.9	601	6.7	295	13.4	6.1	8,021
1988	13.8	616	6.6	293	14.0	6.2	8,327
1989	15.0	661	6.7	305	13.8	6.4	8,738
1990	14.6	651	6.4	293	14.8	6.3	8,757
1991	15.5	697	6.7	308	14.5	6.7	9,494
1992	14.8	676	6.5	304	14.9	6.7	9,599
1993	16.3	752	7.4	355	15.0	6.9	10,028
1994	16.9	787	7.6	370	15.7	7.1	10,528
1995	17.2	808	8.3	400	15.3	7.2	10,794
1996	17.6	833	7.6	377	15.3	7.1	10,930
1997	19.4	932	7.3	368	16.4	7.3	11,291
1998	19.7	960	7.8	398	16.5	7.1	11,229
1999	18.0	891	7.3	383	15.8	6.9	11,008
2000	18.3	906	6.8	362	15.7	6.7	10,917
2001	17.8	897	6.8	360	15.6	6.4	10,595
2002	17.1	865	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 15.

**Male Bladder Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	48.1	1,305	12.9	305	35.3	9.3	6,709
1980	48.3	1,336	12.2	289	37.2	9.2	6,707
1981	44.9	1,268	11.4	269	36.3	9.0	6,709
1982	46.0	1,317	10.4	271	35.8	8.9	6,796
1983	47.6	1,362	11.3	284	36.0	8.8	6,734
1984	44.2	1,288	9.7	245	37.7	8.5	6,600
1985	43.1	1,288	10.5	267	36.4	8.4	6,677
1986	45.3	1,365	9.9	255	37.9	8.1	6,522
1987	45.9	1,403	10.5	278	39.5	7.9	6,490
1988	50.0	1,551	10.3	280	38.1	7.8	6,534
1989	45.4	1,429	11.6	314	37.4	8.0	6,843
1990	46.6	1,472	9.3	257	37.5	8.0	6,910
1991	45.5	1,454	10.5	294	37.6	7.9	7,027
1992	48.2	1,563	9.5	263	37.5	7.9	7,122
1993	47.5	1,559	9.6	279	37.5	8.1	7,474
1994	43.3	1,440	10.4	318	36.8	7.9	7,457
1995	47.0	1,586	9.6	287	36.1	7.8	7,521
1996	43.2	1,479	9.3	287	36.4	7.8	7,682
1997	44.6	1,535	9.5	297	36.9	7.6	7,662
1998	45.3	1,594	9.0	285	38.3	7.7	7,939
1999	46.8	1,669	9.7	320	37.8	7.7	8,104
2000	45.8	1,665	9.3	312	38.2	7.6	8,163
2001	46.4	1,700	8.1	278	37.1	7.5	8,343
2002	43.7	1,601	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data include *in situ* bladder cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 16.

**Female Bladder Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	12.2	478	2.9	111	9.4	2.7	2,985
1980	12.6	509	3.0	117	8.9	2.7	3,108
1981	11.8	480	3.0	120	9.7	2.7	3,104
1982	12.4	509	3.3	136	9.5	2.6	3,078
1983	12.1	512	3.1	129	9.0	2.5	3,109
1984	11.4	486	2.6	111	9.2	2.5	3,114
1985	10.8	468	2.7	115	9.9	2.4	3,108
1986	11.6	514	2.6	112	9.4	2.4	3,132
1987	10.7	484	2.6	114	9.2	2.3	3,099
1988	11.4	513	2.9	133	9.0	2.4	3,271
1989	12.2	550	2.6	118	9.7	2.4	3,278
1990	12.3	565	3.1	142	9.6	2.4	3,430
1991	12.0	557	2.7	127	9.3	2.3	3,379
1992	12.4	578	2.8	137	9.8	2.4	3,583
1993	11.3	540	3.0	152	9.7	2.3	3,488
1994	11.4	551	2.9	142	9.4	2.4	3,713
1995	11.7	568	2.6	133	9.6	2.3	3,562
1996	11.6	572	2.8	147	9.5	2.4	3,769
1997	12.0	597	3.2	167	9.5	2.4	3,920
1998	11.6	583	2.6	139	9.4	2.3	3,818
1999	11.2	577	2.5	137	10.0	2.3	3,806
2000	12.8	658	2.6	146	9.4	2.3	3,839
2001	12.4	652	2.9	160	9.4	2.2	3,882
2002	12.1	632	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data include *in situ* bladder cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 17.

**Male Melanoma of the Skin Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	11.2	355	3.7	104	10.6	3.2	2,751
1980	13.1	421	3.0	93	11.8	3.1	2,750
1981	12.6	417	3.4	107	12.1	3.1	2,810
1982	14.4	464	3.7	121	12.5	3.3	3,036
1983	13.5	439	3.6	120	12.6	3.3	3,073
1984	12.6	408	3.8	120	12.9	3.4	3,207
1985	15.7	521	3.8	124	15.1	3.5	3,296
1986	14.6	477	4.0	124	15.7	3.5	3,378
1987	13.1	430	4.0	128	15.9	3.7	3,634
1988	14.7	487	4.4	142	15.0	3.7	3,583
1989	13.3	436	4.4	139	16.4	3.7	3,736
1990	14.2	484	3.6	116	16.6	3.8	3,843
1991	15.6	532	4.1	138	17.6	3.9	4,017
1992	14.9	521	4.4	150	18.3	3.8	4,045
1993	14.8	516	4.4	149	18.0	3.9	4,127
1994	15.7	557	4.5	153	19.7	3.8	4,117
1995	16.5	600	4.3	148	20.2	3.9	4,295
1996	19.6	715	4.8	166	21.4	4.0	4,490
1997	22.0	802	4.5	158	21.5	3.9	4,488
1998	19.8	739	4.6	166	22.0	4.1	4,747
1999	19.7	745	4.0	145	22.4	3.8	4,529
2000	19.6	744	4.0	145	23.0	3.8	4,592
2001	22.9	889	4.1	155	23.1	3.9	4,763
2002	26.9	1,038	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 18.

**Female Melanoma of the Skin Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	8.0	301	2.0	73	8.9	1.8	1,997
1980	10.8	407	1.6	61	9.6	1.7	1,929
1981	10.1	388	2.1	82	10.4	1.9	2,121
1982	9.2	371	2.1	83	10.3	1.8	2,070
1983	9.4	367	1.8	75	10.0	1.8	2,142
1984	9.0	363	1.9	79	10.4	1.8	2,170
1985	10.6	423	2.1	88	11.1	1.9	2,233
1986	8.9	370	1.8	78	11.6	1.9	2,295
1987	8.7	361	2.0	87	12.1	1.8	2,278
1988	9.8	411	2.1	93	11.4	1.9	2,394
1989	9.1	384	2.0	85	11.9	1.9	2,425
1990	10.1	427	2.1	93	11.8	2.0	2,576
1991	8.6	371	1.9	90	12.5	1.8	2,434
1992	8.8	382	1.9	88	12.2	1.8	2,523
1993	9.0	403	1.8	84	12.0	1.9	2,583
1994	10.9	484	2.2	101	12.6	1.8	2,563
1995	10.4	474	1.8	85	13.6	1.8	2,610
1996	10.8	493	2.1	101	14.0	1.9	2,789
1997	13.0	603	2.2	108	14.7	1.8	2,750
1998	11.7	549	1.9	94	14.7	1.8	2,684
1999	11.5	547	1.8	91	14.7	1.7	2,686
2000	12.6	604	1.5	76	15.0	1.8	2,828
2001	14.9	712	1.8	96	15.6	1.7	2,779
2002	16.3	785	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 19.

**Endometrial Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	23.3	947	2.1	83	27.4	2.4	2,857
1980	23.0	944	2.4	102	26.7	2.5	2,977
1981	22.6	932	2.4	104	26.7	2.5	3,036
1982	23.7	985	2.0	86	26.3	2.4	3,019
1983	24.0	1,025	2.7	116	26.0	2.5	3,212
1984	24.1	1,032	2.3	98	25.2	2.4	3,122
1985	23.7	1,020	2.1	95	24.9	2.3	3,003
1986	23.0	990	2.4	108	24.0	2.3	3,087
1987	22.8	995	2.1	95	24.4	2.3	3,045
1988	23.8	1,052	2.3	108	23.2	2.3	3,120
1989	22.5	993	2.2	103	24.0	2.2	2,983
1990	25.0	1,100	2.2	99	24.6	2.2	3,029
1991	24.7	1,093	1.9	92	24.1	2.1	2,973
1992	24.7	1,108	2.5	119	24.5	2.2	3,176
1993	24.9	1,115	2.4	113	23.8	2.2	3,163
1994	25.6	1,159	2.2	105	24.7	2.2	3,227
1995	27.3	1,235	2.3	113	24.8	2.1	3,136
1996	26.8	1,231	2.1	106	24.4	2.1	3,193
1997	26.8	1,250	2.5	121	25.3	2.1	3,172
1998	28.3	1,333	2.4	120	25.2	2.0	3,158
1999	28.5	1,359	1.8	89	24.8	2.0	3,121
2000	27.3	1,325	2.1	108	24.1	2.0	3,139
2001	28.3	1,386	2.1	109	24.2	2.0	3,185
2002	27.3	1,339	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 20.

**Cervical Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	14.3	538	4.2	165	12.7	4.6	4,935
1980	15.5	589	4.9	183	12.2	4.5	4,873
1981	15.4	590	3.6	146	10.8	4.3	4,815
1982	13.8	529	4.2	165	10.6	4.1	4,630
1983	14.4	562	4.6	185	10.5	4.0	4,651
1984	12.4	494	4.2	166	11.0	3.9	4,564
1985	13.5	536	3.6	149	10.2	3.8	4,508
1986	12.1	482	3.6	151	10.8	3.8	4,557
1987	12.4	503	4.0	160	10.0	3.6	4,423
1988	13.1	535	3.7	149	10.6	3.6	4,443
1989	13.1	541	4.2	176	10.7	3.6	4,487
1990	15.0	616	3.9	162	10.6	3.7	4,627
1991	13.0	544	3.3	143	10.0	3.5	4,514
1992	12.7	541	3.4	148	9.9	3.5	4,641
1993	12.8	553	3.2	140	9.7	3.4	4,582
1994	12.3	530	3.7	160	9.4	3.4	4,602
1995	12.2	531	3.6	163	8.8	3.2	4,503
1996	12.3	547	3.2	142	9.6	3.2	4,540
1997	11.0	496	3.4	157	9.2	3.1	4,499
1998	10.8	493	2.8	132	9.1	3.0	4,340
1999	10.5	482	3.2	152	8.2	2.8	4,204
2000	9.9	460	2.8	132	7.6	2.8	4,200
2001	10.0	465	3.1	150	7.9	2.7	4,092
2002	9.1	426	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

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TABLE 21.

Ovarian Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002*

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	19.9	774	10.4	415	15.4	9.3	10,564
1980	20.1	805	11.4	460	15.4	9.3	10,731
1981	20.3	809	11.1	457	15.4	9.2	10,855
1982	19.7	795	10.9	451	15.6	9.2	11,057
1983	18.4	756	10.7	453	16.0	9.2	11,213
1984	19.0	770	10.4	438	16.3	9.1	11,208
1985	19.3	798	10.3	436	16.5	9.1	11,357
1986	18.9	787	11.4	489	15.0	9.2	11,728
1987	18.8	792	9.8	428	16.1	9.2	11,838
1988	19.7	835	10.1	453	15.3	9.3	12,213
1989	20.1	860	10.5	470	15.5	9.2	12,256
1990	20.2	863	10.9	489	15.4	9.3	12,566
1991	21.0	917	10.9	497	15.7	9.5	13,028
1992	20.6	905	10.9	497	14.9	9.5	13,181
1993	20.4	902	11.3	523	15.2	9.1	12,870
1994	20.0	899	10.8	508	14.4	9.4	13,500
1995	19.0	860	10.0	476	14.5	9.1	13,341
1996	18.6	856	9.6	463	14.1	8.9	13,161
1997	18.0	832	9.6	465	14.6	8.9	13,507
1998	18.9	886	9.3	461	14.2	8.7	13,390
1999	18.1	859	9.5	477	14.5	8.8	13,627
2000	18.1	868	9.6	488	13.9	8.9	14,060
2001	16.7	818	10.0	510	13.9	9.0	14,414
2002	15.2	751	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 22.

**Male Oropharyngeal Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	20.8	654	7.4	229	21.9	6.7	5,874
1980	19.5	614	6.9	214	20.3	6.7	5,899
1981	18.7	606	6.9	215	20.8	6.5	5,831
1982	18.9	600	7.7	243	20.3	6.5	5,854
1983	19.6	644	6.6	214	21.3	6.3	5,787
1984	20.8	669	7.4	236	20.9	6.2	5,764
1985	20.3	663	6.9	222	20.0	5.9	5,616
1986	17.9	597	6.8	210	19.5	5.8	5,514
1987	18.0	595	6.8	228	21.0	5.5	5,310
1988	17.7	601	6.5	210	18.6	5.6	5,496
1989	18.3	617	5.8	190	18.9	5.3	5,337
1990	17.5	598	6.0	200	20.0	5.6	5,636
1991	16.2	556	5.4	180	19.1	5.3	5,463
1992	16.9	592	5.6	189	18.9	5.1	5,366
1993	16.1	551	5.5	182	19.2	5.2	5,515
1994	16.1	564	4.8	164	18.2	4.8	5,226
1995	17.5	624	4.8	169	17.3	4.9	5,327
1996	16.6	605	4.9	173	17.9	4.6	5,214
1997	16.4	603	4.6	162	17.4	4.5	5,200
1998	16.0	609	4.2	151	16.6	4.5	5,281
1999	14.5	554	4.0	150	15.5	4.1	4,944
2000	15.4	597	3.6	137	16.0	4.1	4,952
2001	14.5	575	4.3	167	15.0	4.1	5,155
2002	14.3	565	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 23.

**Female Oropharyngeal Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	7.3	290	3.0	114	8.0	2.4	2,712
1980	7.4	302	2.6	104	7.9	2.3	2,653
1981	6.8	274	2.4	99	7.9	2.2	2,675
1982	7.3	303	2.6	109	7.9	2.2	2,670
1983	7.1	297	2.3	98	7.2	2.2	2,695
1984	7.1	300	2.2	98	7.9	2.2	2,697
1985	7.1	304	2.0	87	8.2	2.1	2,674
1986	6.9	287	2.4	104	7.2	2.2	2,778
1987	6.4	275	1.8	80	7.5	2.1	2,658
1988	7.1	317	2.2	98	7.3	2.0	2,702
1989	7.9	342	2.4	105	7.3	2.1	2,764
1990	7.2	318	2.3	106	7.3	2.0	2,769
1991	6.5	288	2.6	121	7.2	2.0	2,814
1992	5.9	266	2.0	91	6.9	1.9	2,741
1993	7.0	326	2.1	102	7.3	1.9	2,726
1994	6.5	299	1.7	81	6.8	1.8	2,688
1995	7.2	337	2.0	94	7.2	1.8	2,733
1996	6.8	313	2.0	98	7.0	1.8	2,639
1997	6.2	297	1.6	80	6.8	1.8	2,693
1998	6.2	299	1.6	80	6.7	1.7	2,684
1999	7.0	343	1.5	76	6.4	1.6	2,542
2000	5.8	288	1.3	70	6.2	1.6	2,540
2001	6.0	300	1.6	85	6.6	1.6	2,546
2002	5.8	289	**	**	**	**	**

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**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 24.

**Male Thyroid Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	2.2	72	0.8	22	2.7	0.4	353
1980	1.7	58	0.3	8	2.4	0.4	325
1981	2.3	71	0.4	8	2.5	0.4	359
1982	2.7	87	0.5	14	3.0	0.4	325
1983	2.1	71	0.5	16	2.8	0.3	310
1984	3.0	95	0.5	16	2.6	0.4	340
1985	2.5	86	0.5	14	3.1	0.4	348
1986	3.0	100	0.5	15	3.1	0.4	353
1987	2.6	93	0.5	14	2.8	0.4	373
1988	3.2	112	0.5	18	3.0	0.4	379
1989	3.3	118	0.6	17	3.0	0.4	394
1990	2.9	103	0.2	8	2.9	0.4	358
1991	2.1	77	0.6	18	3.2	0.4	380
1992	3.1	116	0.5	18	3.5	0.4	395
1993	3.2	116	0.4	15	3.6	0.4	398
1994	3.2	120	0.5	19	3.4	0.4	402
1995	3.6	138	0.4	14	3.4	0.4	451
1996	2.9	109	0.3	12	3.4	0.4	456
1997	3.4	134	0.2	8	3.6	0.4	498
1998	3.9	155	0.4	11	3.7	0.4	433
1999	4.2	169	0.6	21	3.9	0.4	512
2000	5.3	214	0.5	20	4.0	0.5	550
2001	4.5	184	0.7	26	4.2	0.5	568
2002	5.9	239	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.

TABLE 25.

**Female Thyroid Cancer Incidence and Mortality Rates and Counts
New Jersey and U.S., 1979-2002***

Year	New Jersey				U.S.		
	Incidence		Mortality		Incidence	Mortality	
	Rate	Count	Rate	Count	Rate	Rate	Count
1979	4.7	177	0.8	28	6.2	0.6	646
1980	5.0	189	0.6	23	6.1	0.5	611
1981	4.4	171	0.6	23	6.2	0.5	647
1982	6.0	228	0.5	24	6.1	0.5	647
1983	5.7	224	0.3	13	6.5	0.5	597
1984	6.1	239	0.8	33	6.9	0.5	645
1985	5.9	236	0.5	21	7.1	0.5	609
1986	6.4	261	0.6	25	7.5	0.5	639
1987	7.0	283	0.5	23	7.1	0.5	637
1988	6.4	264	0.6	28	6.9	0.5	604
1989	6.7	277	0.5	23	7.6	0.4	599
1990	6.8	284	0.6	30	7.9	0.5	668
1991	7.2	303	0.6	28	7.6	0.5	646
1992	7.3	308	0.4	20	8.1	0.5	716
1993	6.2	267	0.6	30	7.6	0.5	732
1994	7.3	310	0.6	27	8.7	0.4	660
1995	8.2	357	0.6	30	8.9	0.4	671
1996	8.9	382	0.4	20	9.4	0.5	725
1997	8.2	359	0.7	34	9.7	0.5	725
1998	9.4	417	0.4	20	10.0	0.5	749
1999	10.9	487	0.6	32	10.6	0.5	729
2000	14.3	646	0.5	27	10.9	0.5	778
2001	14.7	667	0.6	29	11.7	0.5	786
2002	15.6	711	**	**	**	**	**

*Rates are per 100,000 and age-adjusted to the 2000 U.S. standard million (19 age groups), 2002 New Jersey incidence data are preliminary. Incidence data do not include *in situ* cancers.

**New Jersey mortality data and U.S. incidence and mortality data were not available at the time this report was prepared.

Data sources: New Jersey incidence data - New Jersey State Cancer Registry, New Jersey Department of Health & Senior Services; U.S. incidence data, New Jersey and U.S. mortality data - Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute; underlying mortality data - National Center for Health Statistics.